Profile of Canadian Youth in the Labour Market

Second Annual Report to the
Forum of Labour Market Ministers

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Executive Summary

The *Profile of Canadian Youth in the Labour Market* reports to Labour Market Ministers on the recent developments of Canadian youth in the labour market. The Ministers set out eight outcomes to measure the progress of youth in the labour market. A report on the outcomes is presented in the Summary Table.

The unemployment rate[1] of Canadian youth (15 to 24 year-olds) declined rapidly over the last two years as the Canadian economy experienced solid and broad-based employment growth. By June 2000 the youth unemployment rate was just 1 per cent above its pre-recession low in 1989. Some might think that young people have finally "arrived" and that the labour market difficulties they faced for so many years are behind them. However, youth are making the transition into a rapidly changing labour market that places a high premium on knowledge and skills. In the past twenty-five years, knowledge-intensive occupations have grown at twice the average rate, and even the traditional occupations have undergone important skills upgrading. Not all youth are investing in the education and training necessary for them to acquire the skills demanded by employers. Some youth face impediments to succeeding or continuing in school and others simply do not take into consideration the long-term benefits of staying in school. The transition between school and work is difficult enough, even when youth have the qualifications demanded in the labour market. It is especially difficult when youth have not achieved the essential knowledge and skills to make a successful transition.

Youth and the Labour Market

An important development in the Canadian labour market in the 1990s has been the persistent decline in the youth labour force participation rate[2], which fell to 61.4 per cent in late 1997 from 71.0 per cent in 1989. In contrast, the adult participation rate declined by less than 1 percentage point over the same period. The youth participation rate has been on the rise in recent years, and reached 63.1 per cent by June 2000. To a large extent, the decline in the participation rate of youth in the 1990s reflects a continuation of the strong upward trend in school enrolments that started in the late 1970s and early 1980s. A lower youth participation rate attributable to higher school enrolments can be viewed as a positive development, since the emerging knowledge-based economy demands a more highly skilled

[1] The unemployment rate is defined as the number of unemployed persons expressed as a percentage of the labour force. Unemployed persons are those who do not have a job but are available for work and are either on temporary lay-off, have looked for work in the past four weeks or have a job to start within the next four weeks.

[2] The participation rate for a particular group is the labour force in that group expressed as a percentage of the population for that group. The labour force includes civilian non-institutional population who are employed or unemployed.

workforce and youth with higher levels of education will be better prepared to meet these demands. As school enrolment rates do not appear to be very sensitive to cyclical conditions in the labour market, it is unlikely that youth participation rates will return to their peak levels in the near or medium term. Another factor that contributed to the decline in the overall youth participation rate is the fall in the participation rate of students, whose attachment to the labour market weakened during the 1990s when the prospects for students finding work were poor. This cyclical decline in the participation rate of students is likely to reverse, barring any unexpected worsening of economic activity.

Two features of youth labour force participation are worrisome. First, one in ten teens aged 15 to 19 were neither employed nor studying full-time in 1999. Typically these teens have very low levels of education and have not been working for at least a year. Their best prospects lie in returning to school. Second, many male teens 15 to 19 leave high school and enter the workforce when labour market opportunities improve, forgoing the chance to improve their long-term employment outcomes by staying in school.

As the overall slack in the labour market lessened, the employment situation of youth improved markedly from 1998 onward. The youth employment rate[3] increased from 51.5 per cent in 1997 to 55.7 per cent in June 2000. The unemployment rate for youth fell to 11.8 per cent by June 2000, and if economic activity in Canada continues on a solid track, the rate could fall further. Although the overall youth employment situation has improved, the share of youth who work in part-time jobs has increased. Part-time jobs tend to have lower wages and benefits and fewer opportunities for skills upgrading than full-time jobs have. The ratio of part-time employment to total employment for youth 15 to 24 rose from 36.7 per cent in 1990 to 44.6 per cent in 1999 and youth who were not in school showed the largest increase. There is also cause for concern that less educated youth have increasingly restricted access to the labour market. The employment rates of youth with less than high school education fell furthest from peak levels during the past recession and have been on a downward slide for the past 25 years.

The self-employment rate of youth 15 to 29 increased only slightly through the 1990s to 6.9 per cent in 1999, an indication that entrepreneurial activity of youth was stable over the past decade. About two-thirds of post-secondary graduates who started out as self-employed were still self-employed five years after graduation. Earnings of self-employed youth tend to be about 25 per cent below earnings of youth who are paid employees, but there are likely other important determinants of successful entrepreneurial activity, such as job satisfaction.

[3] The employment rate for a particular group is the number of employed persons in that group expressed as a percentage of the population for that group. Employed persons are those who do work for pay or profit, or have a job and are absent from work.

Youth earnings have continued to fall throughout the 1990s relative to the earnings of adults, prolonging a trend that began in the late 1970s and early 1980s with the entry of the baby boom generation into the labour market. The continued decline of relative earnings in the 1990s may be related to the weakness of the overall labour market. However, with the recent improvements in the labour market, there have been some indications that the relative earnings of youth may be rallying. Young women's earnings have improved relative to earnings of young men since the early 1980s, but women's earnings are still well below those of men.

Earning premiums from higher education among young workers were quite stable over the 1990-97 period, suggesting that growth in demand for more educated youth has been broadly in balance with the increasing flow of young post-secondary graduates. More recent data suggest that earnings of university graduates increased in 1998 and 1999 relative to earnings of youth with lower educational attainment. There is a considerable earnings premium on a university degree, especially for women. In the 1990s female university graduates had about 50 per cent higher full-year, full-time earnings than women with a high school diploma. The earning premium was about 30 per cent for male university students.

Youth are continuing further in their education, which is a very good sign. The high school dropout rate among youth aged 20 to 24 fell considerably from 17.0 per cent in 1990 to 11.9 per cent in 1999. At this point, it is not clear what kinds of interventions are needed for a further significant reduction in the high school dropout rate. Work by the OECD suggests that lower high school dropout rates could be achieved if education systems offered flexible pathways, more workplace experience, and the chance to explore a variety of technical and vocational avenues that would allow students to continue on to post-secondary education. The minimum legal age for leaving school could be increased to ensure that most youth complete high school, and information campaigns that promote the benefits of high school completion could be initiated.

The proportion of youth with a post-secondary diploma or degree has also been increasing, especially for women: by 1996, almost half of young adults 25 to 29 years old had a post-secondary diploma or degree. Continuous monitoring of the accessibility of post-secondary education will be needed to see whether youth who aspire to a post-secondary education are running into financial obstacles, and how these obstacles might be removed.

Despite the dramatic progress in education levels for youth, employers often complain about skill shortages and many young graduates have trouble finding jobs to match their skills. The Expert Panel on Skills reports that employers complain less about a widespread shortage of technical skills than about a shortage of management skills and essential skills such as the ability to read, write, think critically,

calculate, and use a computer. These skills are essential to a knowledge-based economy and can be transferred easily from one job to another. Studies have shown that university graduates who have trained for specific occupations such as engineering and the health sciences often have lower than average essential skills, whereas arts and science graduates often have well-developed essential skills but may lack specific job credentials. More study of the job-education match is needed to determine how elementary, secondary and post-secondary school systems can better develop these skills in students and what role employers can play in helping to develop these skills.

Even though employers do not currently face a general shortage of technical skills in new employees, the rapid pace of technological change suggests that future jobs will require qualified workers in the scientific and technological fields, at all levels of education. The increase in graduates in these fields has been modest at best, and it is not clear why. A thorough evaluation of the factors underlying the slow growth in graduates in the scientific and technological fields may be in order.

Labour market information is a crucial element in the school-work transition, especially in an increasingly competitive and complex labour market. In 1999, the Forum of Labour Market Ministers endorsed a new strategy to develop and better disseminate labour market and career information products for youth. Schools could be the starting place for disseminating the new information tools being introduced by the federal, provincial and territorial governments.

Youth at Risk

While favourable developments have taken place in recent years in the labour market for youth, certain groups of youth clearly warrant close attention. Not completing high school, or not achieving a given threshold in terms of skills, places youth at a serious disadvantage in an economy that demands a more highly skilled work force. Aboriginal youth, who are among the fastest growing segments of the youth population in Canada, pose especially serious challenges. Aboriginal youth have much lower levels of educational attainment than the overall youth population. In addition, Aboriginal youth, with the exception of university graduates, experience less favourable labour market outcomes than other youth with the same levels of educational attainment. It is critical for the future well-being of the Aboriginal communities to find appropriate ways to encourage Aboriginal youth to stay in school and to understand the factors that prevent them from reaping the same labour market outcomes as other youth in Canada.

The Transition between School and Work

Much of the focus in Canada's education systems has been on encouraging students to continue on to post-secondary education. Yet, a large number of high school graduates do not go directly to post-secondary education: they go to work. There is a need to ensure that these youth are well prepared to

enter the work force. There is evidence that the availability of flexible pathways in high school not only can encourage youth to stay in school, but can also lead to successful transitions into the labour market. However, enrolments have declined significantly in vocational education in Canadian high schools. Various work preparation programs have been initiated, but little is known about the outcomes of such programs. While there is evidence that apprenticeship programs result in favourable labour market outcomes, few youth engage in such programs, possibly because of insufficient promotion of these programs in high school or because youth are aware that there is a risk during economic downturns that employers will lay off apprentices that are part-way through their programs.

There are also concerns about the school-work transitions for those who engage in post-secondary education, many of whom turn to the labour market without completing their studies. Although the monetary rate of return to an individual for completing a post-secondary education still remains high despite rising tuition fees, it is possible that some youth may abandon their studies because they do not have access to sufficient financial resources, or because they consider their mounting debt load as insupportable. There is concern that youth from lower income families may be more wary of higher debt loads. The new Youth in Transition Survey (YITS) will help to better understand factors that can promote or inhibit higher educational achievement and successful school-work transitions.

The *Profile of Canadian Youth in the Labour Market* concludes by identifying four issues that need to be tackled: How to keep youth in school? How to improve the prospects of Aboriginal youth? How to better prepare high school students who directly enter the labour force? And how to ensure continued access to post-secondary education for all youth? The *Profile* also stresses the need to achieve a much better understanding of the factors that determine a successful transition for youth.

Summary Table

Profile of Canadian Youth in the Labour Market: Report on Outcomes

Outcomes	Recent Developments	Challenges
1. Work opportunities available to youth	The chances of youth finding a job have much improved in the past two years: 55.7% employment rate in June 2000 compared to 51.5% in 1997 for youth 15-24.	Youth are more likely to be working involuntarily in part-time jobs. Those without high school are progressively more at risk of being excluded from the labour market. In 1999, 10% of youth 15 to 19 years old were neither employed nor in school. Many male teens leave school and go to work when the labour market improves.
2. The number of youth who are unemployed	The youth 15-24 unemployment rate is approaching pre-recession levels: 11.8% in June 2000 compared to 16.2% in 1997.	Youth unemployment rates were 6 percentage points above adult rates in June 2000. The number of youth with no job experience doubled in the 1990s.
3. Successful entrepreneurial activity by youth	Proportion of self-employed youth 15-24 increased slightly in the 1990s, and was 6.9% in 1999.	Earnings of self-employed youth are 25% lower than of earnings of paid employees; but this is not the only measure of success.
4. Real earnings of youth	Decline in real earnings of youth relative to adults continued into the 1990s. Relative earnings at different levels of education have changed little 1990-97. There are some indications that the relative earnings for university graduates increased in 1998 and 1999.	Young women continue to earn less than young men, especially at low levels of education. Young women's relative earnings are improving, however.
5. The percentage of secondary and post-secondary graduates in the youth population	High school dropout rates of youth 20 to 24 fell steadily in the 1990s to 11.9% in 1999. Post-secondary graduation rates of young adults 25-29 increased from 34% in 1986 to 47% in 1996. Dramatic increase in female post-secondary education enrolments.	Male youth 20-24 have a 5-percentage point higher dropout rate than female youth. Aboriginal youth have very low rates of high school completion.
6. The number of youth who indicate their training has been relevant to the jobs they have obtained	No evidence of a generalised shortage of technical skills, but widespread shortage of management and essential skills.	Schools and employers may not be providing the curricula and training to develop these skills in youth. More study of the job-education match in Canada is required.
7. The percentage of youth training in trades, technologies and apprenticeable occupations	Share of graduates from technical fields of study at the post-secondary level increased moderately in the 1990s, although it is still lower than the share in the mid-1980s.	Completions of trade-vocational programs at the high school level, and apprenticeship completions and trades certificates fell in the 1990s.
8. Access to locally relevant, timely labour market information and career-planning information by youth	A strategy was endorsed by the FLMM in 1999 to develop a suite of national labour market information products and pilot some provincial prototypes.	In 1999, only 41% of young people 16 to 30 ever used labour market or career information to help in job search. No national systematic inventory or evaluation of products has been done.

Introduction

Profile of Canadian Youth in the Labour Market reports to the Forum of Labour Market Ministers (FLMM)[4] on Canada's youth in the labour market. Officials from the federal, provincial and territorial governments worked together to assess the recent developments of youth in the Canadian labour market, what challenges youth continue to face when making their transition between school and work, and what can be done to improve their transition.

The federal, provincial and territorial governments share a vision wherein all Canadian youth are able to participate in social and economic opportunities. In March 1998, the Labour Market Ministers forged a partnership to achieve common goals and outcomes for Canadian youth. They agreed to develop and implement new partnerships to support their efforts to:

- Create opportunities for all youth to develop the skills and knowledge needed for work.
- Increase work opportunities for youth.
- Help youth respond to the changing nature of work.
- Address the cultural and social barriers that may prevent youth from working.

The *Profile* reports on the recent developments of youth and the labour market in terms of eight outcomes set out by the Ministers:

- work opportunities available to youth,
- the number of youth who are unemployed,
- successful entrepreneurial activity by youth,
- real earnings of youth,
- the percentage of secondary and post-secondary graduates among the youth population,
- the number of youth who indicate that their training has been relevant to the jobs they have obtained,
- the percentage of youth training in trades, technologies and apprenticeable occupations, and
- access to locally relevant, timely labour market and career planning information by youth.

In this report, we offer three perspectives on the progress that youth have made in their transition between school and work.

Youth and the Labour Market reports on recent events in the labour market for youth, beginning with a discussion of the key features of the youth labour market and continuing with an analysis of recent developments in the labour market for youth. A report on the outcomes set out by Ministers concludes this section.

Youth at Risk examines the situation of youth who face barriers that may exclude them from participating fully in school and work. How do these young people fare in school and work? How can their opportunities be improved?

[4] The Government of Québec, although it shares concerns about youth employment, does not inend to adhere to a pan-Canadian strategy. It considers that federal youth programs should be transferred to the Government of Québec, along the model of the Canada-Québec Labour Market Agreement. Thus, the present document does not reflect the position of the Québec Government.

In **The Transition between School and Work** three current issues relating to the school-work transition are selected for discussion: How prevalent is the "brain drain" as it relates to youth? Do trade and vocational programs prepare Canadian youth for the work force? Are post-secondary graduates overloaded with debt?

The **Conclusion** then lays out the key issues that emerge from the report. There are some final words on the work that needs to be done to better understand the factors that affect youth in their transition from school to work.

The *Profile* continues the ongoing exchange of ideas by federal, provincial and territorial governments, in the interests of a better understanding of the employment challenges facing Canadian youth and ways to improve the opportunities for youth in Canada's labour market.

Youth and the Labour Market

Key Features of the Youth Labour Market

Youth Population

The baby boom created a surge in the youth population 15 to 24 that peaked at 4.8 million in 1980. Through the 1980s, as the last wave of baby-boomers entered their mid-twenties, the youth population declined steeply to 3.9 million in 1991. The children of baby-boomers began to enter the youth age group in the early 1990s, and with this "baby-boomer echo," youth population increased slightly to 4 million by 1999.

The percentage of youth in the working age population 15 to 64 years old is much smaller now than in 1980. In 1980, youth made up three in ten of the working age population. Now, youth are slightly less than one-fifth of this population. Demographic projections suggest that the percentage of youth in the working age population will remain close to 20 per cent for the next decade.

- There are 4 million youth between 15 and 24 years old in Canada. **Youth** 15 to 24 years old are generally considered to be making the school-work transition. One-half of Canadian youth are **teens** aged 15 to 19.
- Canadian youth make up for one-fifth of the population of 15 to 64 years old.
- Many **young adults** aged 25 to 29 are also making the school-work transition. There are 2.1 million young adults in Canada.
- **Core-age population** is defined as adults aged between 25 and 54. There are 13.7 million core-age adults in Canada.

Source: Labour Force Survey, 1999 figures

In the 1990s, the more western provinces showed the strongest growth in youth population. *(Table 1)* Interprovincial migration contributed to the increase in youth population in British Columbia in the early 1990s and in Alberta more recently. In Ontario and Québec, the youth population increased moderately at a rate below the Canada-wide average. Youth population continued to fall in the Atlantic Provinces and Manitoba in the 1990s. Newfoundland had a particularly steep decline over the past decade.

Table 1
Change in Youth Population by Province, Canada, 1980-1999, per cent

	1980-90	1990-99
Canada	**-17.3**	**2.9**
Newfoundland	-9.2	-22.7
Prince Edward Island	-17.6	-0.5
Nova Scotia	-16.5	-8.3
New Brunswick	-17.3	-10.9
Québec	-26.3	1.8
Ontario	-10.5	0.5
Manitoba	-16.9	-5.4
Saskatchewan	-24.2	5.6
Alberta	-21.1	14.8
British Columbia	-12.7	18.7

Source: Labour Force Survey, Statistics Canada

Canada's Labour Market in the 1990s

The Canadian labour market has emerged from a particularly difficult period following the 1991 recession. A significant increase in core-age adult (25 to 54) employment rates did not occur until 1994. *(Table 2)*

Solid growth in adult employment occurred in 1998 and 1999. Employment also increased for almost all age groups and for every province in 1999.

Adult employment growth continued at a healthy pace through the first quarter of 2000, and has eased off somewhat since then. The core-age adult unemployment rate by June 2000 was 5.6 per cent, over a percentage point below its pre-recession low in 1989.

Typically, youth employment is much more affected by economic downturns than adult employment, and tends to recover more slowly. The delayed recovery in the overall labour market during the 1990s has meant an even more delayed recovery for youth. By June 2000 the youth unemployment rate had declined to 11.8 per cent, and is still about one percentage point above its pre-recession low.

The Growing Importance of Education

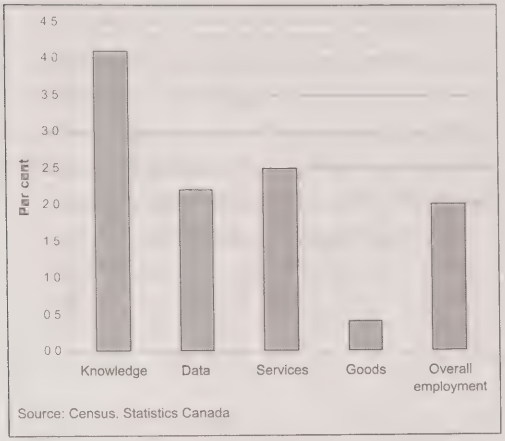
As the role of knowledge expands and global competition intensifies, Canadian firms are demanding a more highly skilled work force. Occupations in which the main function is to produce "knowledge", such as the pure sciences, engineering, applied sciences, computer sciences, and the social science professions, have grown more rapidly than occupations where the main task is to provide personal services (services), to produce goods (goods) or to manipulate information (data). Census data show that between 1971 and 1996, the average annual growth in knowledge occupations (4.1 per cent) was over twice as strong as the average growth in overall employment (2.0 per cent). *(Figure 1)*

Table 2
Youth and Adults in the Canadian Labour Market, 1990-2000

(Annual averages)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment ('000)											
Youth 15-24	2400	2235	2139	2089	2099	2108	2074	2042	2101	2208	2269
Adult 25-54	9389	9361	9376	9539	9739	9983	10106	10391	10637	10847	11040
Employment growth (% end of year)											
Youth 15-24	-8.1	-3.9	-5.2	-0.4	0.4	-0.8	-2.0	-0.2	5.9	3.9	0.8
Adult 25-54	0.6	0.1	0.7	1.7	3.3	1.5	1.4	3.3	1.9	2.1	2.3
Participation rate (%)											
Youth 15-24	69.8	68.0	66.2	64.5	63.9	63.2	62.3	61.4	61.8	63.6	63.9
Adult 25-54	84.2	84.1	83.3	83.5	83.2	83.3	83.4	83.9	84.3	84.6	84.8
Employment rate (%)											
Youth 15-24	61.2	57.3	54.9	53.5	53.8	53.9	52.7	51.5	52.5	54.7	55.9
Adult 25-54	78.0	76.3	74.9	74.9	75.5	76.3	76.2	77.3	78.3	79.2	80.0
Unemployment ('000)											
Youth 15-24	340	419	440	429	393	364	376	394	375	359	327
Adult 25-54	746	955	1049	1095	1002	924	961	882	809	744	663
Unemployment rate (%)											
Youth 15-24	12.4	15.8	17.1	17.0	15.8	14.7	15.4	16.2	15.2	14.0	12.6
Adult 25-54	7.4	9.3	10.1	10.3	9.3	8.5	8.7	7.8	7.1	6.4	5.7

Source: Labour Force Survey, Statistics Canada
Note: Annual average from January to June for 2000.

Figure 1
Annual Average Growth in Employment by Type of Worker, Canada, 1971-1996



Source: Census. Statistics Canada

Data and services occupations grew slightly more than the overall average between 1971 and 1996, while goods-producing occupations grew a scant 0.4 per cent per annum.

In addition to an increase in "knowledge" occupations that require highly educated and skilled workers, there has also been an increase in skills upgrading in the other occupational categories. In the 1990s the number of jobs demanding higher education and skills as defined by the National Occupational Classification System grew twice as fast as the number of lower-skilled jobs demanding only high school or lower levels of education.

An increase in demand for workers requiring higher education and skills has translated into strong employment growth for more educated workers and weak employment growth for less educated workers: Labour Force Survey data show that employment for those without post-secondary education was flat in the 1990s while employment for those with a post-secondary diploma rose sharply.

Labour Force Participation of Youth

The determinants of labour force participation for youth

Because youth are in transition between school and work, their labour market choices are quite different than those of adults. A decline in the labour force participation rate for youth does not necessarily mean that labour market conditions have deteriorated. It can also reflect the fact that more young people are staying in school longer or going back to school.

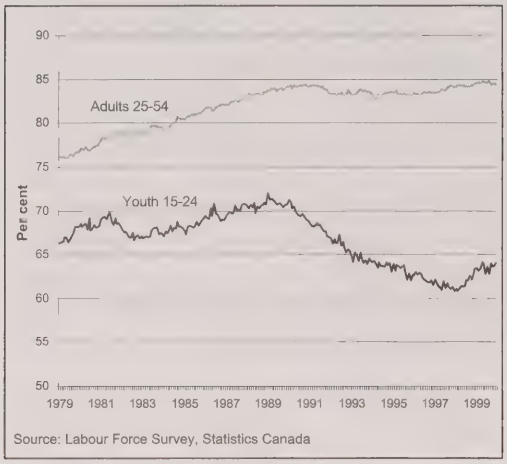
A participation rate that is falling because young people want to better prepare themselves for the labour market is, in itself, good news. When youth build their human capital they can look forward to higher wages and more stable jobs. However, when youth who are not going to school, leave the workforce or do not enter the labour market because there are no jobs, the situation is more worrisome.

Significant decline in participation rate for youth since 1990

Variations in the labour force participation rates are typically much wider for youth than adults. The labour force participation rate for core-age adults 25 to 54 rose steadily through the 1980s and 1990s, with mild downswings during labour market slowdowns. The participation rate for youth fluctuated much more widely during labour market cycles, and declined steeply through most of the 1990s.

The youth participation rate declined from its peak annual average of 71.0 per cent in 1989 to 61.4 per cent in 1997. During the same period, the adult participation rate declined by less than 1 percentage point. The youth participation rate started to increase again in 1998, and in the first half of 2000, averaged 63.9 per cent. *(Figure 2)*

Figure 2
Labour Force Participation Rate for Youth and Adults, Canada, 1979-1999



Source: Labour Force Survey, Statistics Canada

Factors underlying the decline in the youth participation rate

The decline in the youth participation rate can be traced in part to poor labour market conditions. According to a study by Archambault and Grignon (1999), about half of the decline in the participation rate of youth between 1990 and 1996 can be attributed to cyclically weak employment.

A significant proportion of the cyclical decline in the participation rate in the 1990s reflects the fall in the labour force participation of students. Students may have become less attached to the labour market in the 1990s because the prospects of finding work while continuing in school were poor. The lower labour force attachment of students is likely to be temporary.

The other major factor contributing to the decline in the participation rate of youth in the 1990s is the continued growth in school enrolments over that period. Because students have a weaker attachment to the labour market than non-students, a rise in the proportion of youth in school will depress labour force participation rates.

The factors underpinning the strong and sustained growth in enrolment rates over the 1980s and 1990s remain imperfectly identified, but there is evidence to suggest that a significant reversal in the trend in enrolments is not likely. Certainly the secular deterioration in the labour market performance of less educated workers and the improvement in the performance of more educated workers play a part in influencing young people to stay in school. Moreover, overall enrolment rates are not very sensitive to the labour market cycle, and so improved labour market conditions in the late 1990s and beyond are not likely to significantly reduce enrolments.

Since a large proportion of the decline in the participation rate of youth in the 1990s can be attributed to the long-term trend of increasing school enrolments, it is unlikely that the youth participation rate will return to its 1989 peak level.

Male and female youth participation rates

From 1989 to the first half of 2000 the annual participation rate for male youth declined from 73.5 to 65.6 per cent, or 8 percentage points. Female youth participation rates declined somewhat less, from 68.4 to 62.1 per cent over the same period.

The factors underlying the declines in participation rates vary substantially for male and female youth. Estimates by Beaudry, Lemieux and Parent (1999) show that the main factor related to the decline in the participation rate for male teens 15 to 19 appears to be a general deterioration in their labour market opportunities. Thus with continued economic improvements, male teens would be more likely than other youth to take advantage of current labour market opportunities and leave school to work.

The decline in the participation rates for male youth 20 to 24 can be attributed in equal parts to worse labour market conditions and higher perceived returns to staying in school.

Female teens tend to consider the long-term returns to education more than male teens do. Beaudry, Lemieux and Parent have found that the decline in the participation rate for female teens can be attributed primarily to their decision to stay in school so as to improve their future incomes, rather than to their lack of opportunities in the labour market. Thus when labour market conditions improve, young women are more likely than young men to remain in school. For females 20 to 24 also, the main factor underlying their declines in participation rates is their perception that the net returns of staying in school have increased.

The participation rates for both male and female students 15 to 19 declined with worsening labour market conditions.

Some concerns

The fall in the overall participation rate of youth can be attributed in large part to the decision of youth to postpone their entry into the labour market and stay in school longer. Thus the main concern is not whether the difficult labour market of the 1990s has damaged the job prospects of this generation of youth. Indeed, given that more educated youth tend to perform better in the labour market than less educated youth do, the prospects for youth are likely to improve if they invest in human capital rather than struggle to make a living in a weak labour market.

Certain aspects of youth labour force participation warrant attention, however. First, a significant number of youth are neither students nor working: in 1999, for example, about 10 per cent of youth 15 to 19 were neither employed nor studying full-time. This group tends to be among the least educated of all youth and many in this group have not had a job in at least a year. Given the poor opportunities they have in the labour market, they most likely would benefit from investing further in education.

Second, and related to the first concern, many 15-19 year-olds, primarily male teens, leave school and go to work when the labour market improves. These male teens may not consider fully the lifetime benefits of education because the earnings they can make in the short-term seem so attractive. They do not take into account their future employment prospects, which will diminish considerably if they drop out of high school.

Recent Developments in the Labour Market for Youth

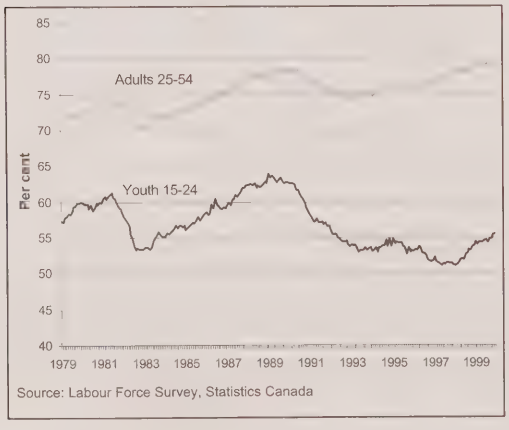
Youth Employment

The persistent gap between youth and adult employment rates

Before the 1991 recession, the employment rate for youth 15 to 24 was about 15 percentage points lower than for core-age adults 25 to 54. At the onset of the 1991 recession, the employment rate for youth plunged, and the gap between the two rates widened considerably. The employment recovery began much later for youth than adults and the gap in employment rates widened further to reach a peak of 26 percentage points in 1997. *(Figure 3)*

After more than a year of job growth for core-age adults, youth employment rebounded with exceptional strength and grew rapidly in 1998, 1999 and the early part of 2000. However, the gap between adult and youth employment rates was still 24 percentage points by the first half of 2000, considerably wider than at the onset of the recession.

Figure 3
Employment Rates for Youth and Adults, Canada, 1979-1999



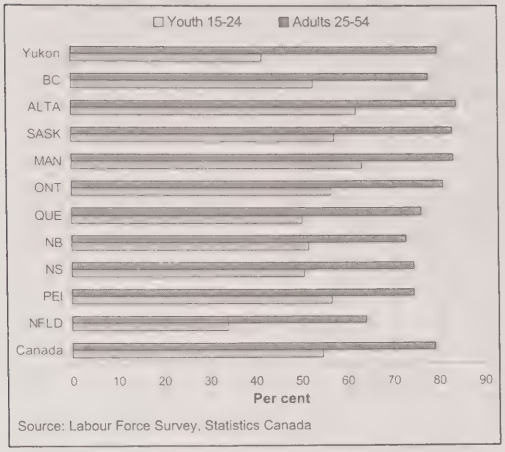
Source: Labour Force Survey, Statistics Canada

The pattern of the youth employment rate relative to the adult employment rate in the 1990s contrasts sharply with the pattern in the 1980s, when the youth and adult employment rates moved in tandem and the gap between them was fairly constant. Both supply factors such as higher student enrolment rates and demand factors such as a weaker economy have contributed to widening the gap in the 1990s. As explained in the previous section, the rise in school enrolments is likely to be permanent and will have a lasting downward effect on the youth employment rate as well as the participation rate. On the demand side, further improvements in the economy will create more jobs and will therefore tend to increase the overall employment rate. Because youth are typically the last to benefit from a general recovery in the economy, continued strength in the economy combined with a high adult employment rate are needed to ensure that youth employment rates continue to rise.

Regional variations in youth employment rates

In general, the higher the adult employment rate in a province or territory, the higher the youth employment rate is likely to be, because youth and adults are subject to the same local labour market conditions. *(Figure 4)* In 1999, youth employment rates were below the Canadian average in the Atlantic provinces (with the exception of Prince Edward Island), the Yukon and Québec, and above average in the Prairies and Ontario. Yukon and Newfoundland had the lowest youth employment rates and the widest gap between youth and adult rates, reflecting the especially difficult labour market conditions that youth face in these regions. In Prince Edward Island, where there are employment opportunities for young people in the tourist industry, the youth employment rate was relatively high compared to the adult rate.

Figure 4
Employment Rates for Youth and Adults by Province and Territory, Canada, 1999



Source: Labour Force Survey, Statistics Canada

Youth are taking more part-time jobs

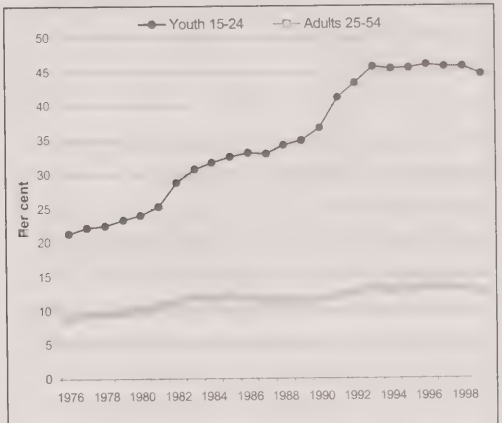
During the 1990s, youth took more part-time work, instead of full-time paid employment. Part-time jobs tend to have lower wages and benefits and fewer opportunities to upgrade skills through training.

The ratio of part-time to full-time employment for youth has always been higher than for adults because many high school and post-secondary students work. Even so, the number of youth working part-time has increased steadily in the last ten years: between 1990 and 1999, the ratio of part-time to total employment for youth increased from 36.7 per cent to 44.6 per cent. In contrast, the part-time/total employment ratio for adults increased only slightly from 11.6 per cent to 12.7 per cent over the same period. *(Figure 5)*

Part of the increase in part-time work for youth reflects their decision to stay in school. However, those *not* attending school full-time showed the largest increase: the ratio of part-time to total employment for this group rose from 12.5 per cent in 1990 to 20.3 per cent in 1999. For those attending school full-time, the ratio of part-time to full-time employment remained relatively constant at 95 per cent on average during the 1990s.

Part-time work can be voluntary or involuntary, and involuntary part-time work can be seen as a measure of underemployment. The share of involuntary part-time work has more than doubled for youth over the last 25 years. Youth attending school full-time generally choose to work part-time voluntarily; but of those not attending school full-time, more than half are working part-time involuntarily.

Figure 5
Part-time Employment As a Per Cent of Total Employment, Youth and Adults, Canada, 1976-1999

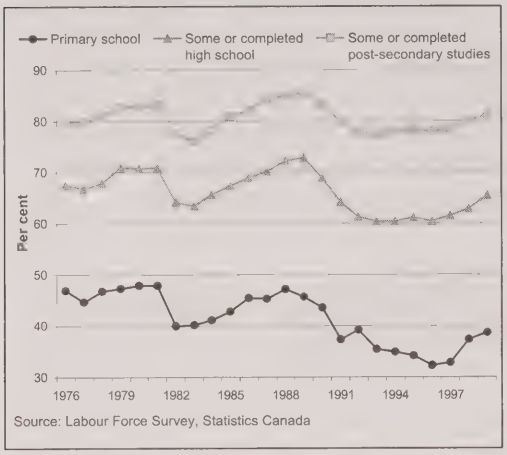


Source: Labour Force Survey, Statistics Canada

Downward trend in employment rates for youth with less education

Generally, the higher the education the better are the employment prospects. In 1999, for example, the employment rate for non-student youth 15 to 24 with primary schooling was 25 percentage points below that for youth who had some high school or had completed high school. The employment rate for youth with some or completed high school was about 15 percentage points below the rate for those with some or completed post-secondary education. *(Figure 6)*

Figure 6
Employment Rates for Non-Full-Time Students Aged 15-24, Canada, 1976-1999



Worth noting is that during recessions, the employment rates of less educated youth fall the most relative to the levels reached at the height of the business cycle. This pattern is not surprising given that employers first lay off workers who have less specific human capital or seniority in the firm. Another perhaps more troubling development in the youth labour market is that the employment rate of less educated youth who are not full-time students has been trending down over the past 25 years. This is most acute for those youth that have only primary education but is also apparent for youth with some or completed high school. These downward trends suggest that access to the labour market has been deteriorating progressively for less educated youth over the last 25 years.

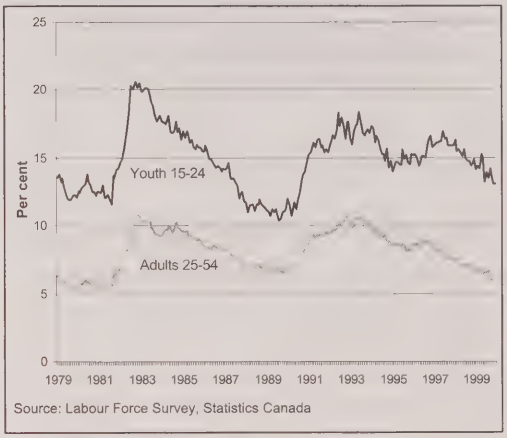
Youth Unemployment

The unemployment rate for youth is approaching pre-recession levels

High overall unemployment rates persisted for most of the 1990s. The unemployment rates for both adults and youth rose sharply during the 1991 recession and subsequently fell only very gradually on a path marked by temporary setbacks of higher unemployment. *(Figure 7)*

By June 2000, the youth unemployment rate was 11.8 per cent compared to a rate of 5.6 per cent for core-age adults 25 to 54 years old. The youth unemployment rate is still about one percentage point above its pre-recession low whereas the rate for adults 25 to 54 is about one percentage point below its pre-recession low.

Figure 7
Youth and Adult Unemployment Rates, Canada, 1979-1999



Recall that there was a large decline in the youth labour force participation rate during the 1990s. Other things being equal, the withdrawal of youth from the labour market would have resulted in a tighter supply of young workers and therefore a lower unemployment rate for youth. However, the labour market for youth did not tighten: in fact, the unemployment rate increased, suggesting that the decline in demand for youth during the 1990s exceeded the decline in supply that accompanied lower participation rates. Cross-country studies have shown that youth employment is highly dependent on the aggregate state of the labour market. Therefore, the overall sustained weakness in the level of business activity in Canada in the 1990s must have resulted in a particularly large decline in the demand for new entrants to the labour market, penalising young workers relative to adults.

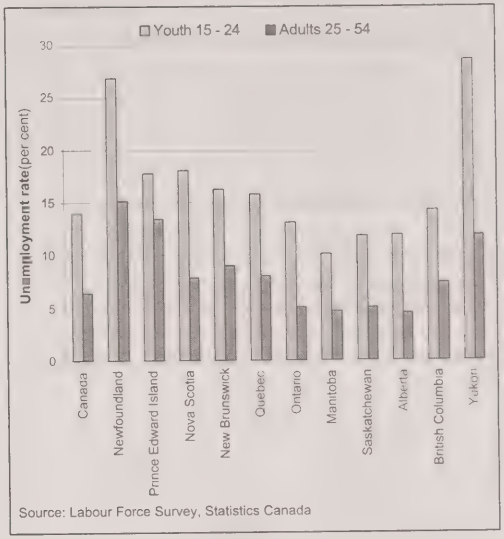
Youth have higher and more volatile unemployment rates than adults

Youth generally have a higher unemployment rate than adults do. The gap between the youth and the adult unemployment rates occurs partly because firms prefer to keep workers with experience. It also occurs because youth do not always make a smooth transition between school and work and they tend to change jobs more frequently than adults do. They often find jobs that do not match their skills or start to work before they have the necessary qualifications, and then leave these jobs or are laid off.

Because youth are the first to lose their jobs when business conditions deteriorate and the last to be hired, they typically have a more volatile unemployment rate than adults. As Figure 7 shows, the absolute difference in percentage points between the adult and the youth unemployment rate increases during periods of weak economic activity and falls during periods of high economic activity.

Absolute differences between youth and adult unemployment rates vary substantially across provinces. *(Figure 8)* These differences tend to be higher in provinces where the aggregate level of unemployment is higher and overall activity is weaker. For example, in Newfoundland, the average level of unemployment in 1999 was 17.1 per cent and the absolute gap between youth and adult unemployment rates was 11.6 percentage points. In Ontario, the average unemployment rate was 6.5 per cent in 1999 and the gap was only 8 percentage points between the youth and the adult unemployment rates. Thus in high unemployment regions, a higher percentage of youth labour force participants than adult participants tend to be unemployed.

Figure 8
Youth and Adult Unemployment Rates, by Province and Territory, Canada, 1999

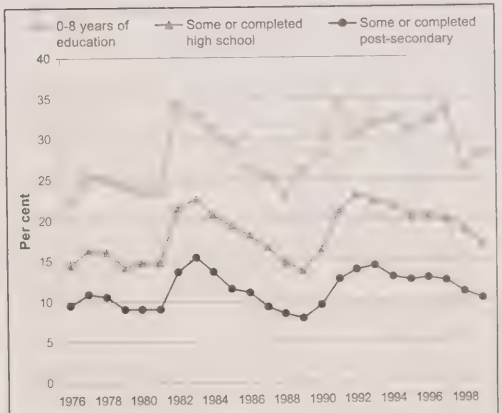


Source: Labour Force Survey, Statistics Canada

Inexperienced, less educated youth have worse labour market outcomes

Less educated youth have higher and more volatile unemployment rates than more educated youth. *(Figure 9)* Less educated youth are particularly vulnerable in a labour market such as Canada's where there is a high value placed on skills.

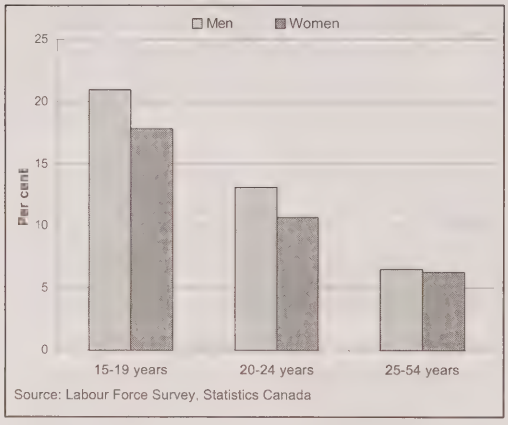
Figure 9
Unemployment Rates by Level of Education for Non-Full-time Students Aged 15-24, Canada, 1976-1999



Source: Labour Force Survey, Statistics Canada

The unemployment rate for teens is well above the rate for older youth. *(Figure 10)* Because teens tend to have low levels of education, they often lack specific skills needed to find and keep a job. They also lack seniority and so tend to be the first laid off. In 1999, teens 15 to 19 who were not full-time students had unemployment rates about 7 percentage points higher than youth 20 to 24 years old.

Figure 10
Unemployment Rate by Age, Non-Full-time Students, Canada, 1999



Source: Labour Force Survey, Statistics Canada

Teens are on average less educated than 20 to 24 year olds, which explains in part why teens have a worse performance in the labour market. However, for a given level of education, teens still have significantly higher unemployment rates than older youth. Experience in the labour market confers skills, decreases turnover and reduces the incidence of unemployment.

Because jobs were hard to find for youth during the last decade, the percentage of youth who had no experience in the labour force rose dramatically. The percentage of teens 17 to 19 who had no experience tripled to 26 per cent between 1989 and 1998, while the percentage of older youth aged 20 to 24 without experience quadrupled to 8 per cent.

Prospects for youth unemployment

Youth are more likely to improve their employment prospects when the economy is on a continued and solid track of high aggregate employment. Barring any unexpected worsening of the overall level of economic activity, the prospects for youth who decide to work may well improve over the coming years and the unemployment rate may well continue to decline. Youth who have made the decision to stay in school longer will likely benefit from a higher level of skills as well as from a stronger economy. More part-time work may be also available to students. Outcomes may also improve for those who are currently inactive (neither working nor studying) and do not want to continue their education. The prospects are more problematic for youth who have not completed high school or mastered basic skills, and who leave school to go to work. In the long run, they may lose out if they decide to work instead of pursuing further education.

Youth Self-employment

Self-employment rates for youth have been stable through the 1990s

In 1999, there were 267,000 self-employed youth aged 15 to 29 in Canada. The proportion of self-employed youth increased very slightly from 6.4 per cent in 1990 to 6.9 per cent in 1999.

Finnie (1999) reports from National Graduates Survey data that in 1995 the self-employment rate for 1990 post-secondary graduates was 11 per cent for males and 6 per cent for females. The rates were slightly lower for college graduates than university graduates. The self-employment rates of post-secondary graduates were stable between the mid-eighties and mid-nineties. For both male and female graduates, self-employment rates were almost the same in 1991 (for the class of '86) and 1987 (for the class of '82) as they were in 1995.

Self-employment opportunities

Some young people choose to be self-employed because they are self-starters: they prefer the

higher risk and the potentially higher pay-off of running their own business. Self-employment may also be a stepping-stone to better career opportunities, or an opportunity to create a more flexible work situation than is possible with more conventional employment. The idea of being your "own boss" is an attractive one, especially for young people. According to an Ekos Research opinion poll (1998) 48 per cent of youth 15 to 24 years old said they were interested in being self-employed compared to 42 per cent of adults 25 to 34 years old, and 32 per cent of adults 45 to 54 years old.

Other young people become self-employed because they cannot find suitable paying jobs. They may have no choice but to accept self-employment even though it may offer fewer benefits and training opportunities than paid work.

Finnie (1999) suggests that the majority of post-secondary graduates probably choose to become self-employed: they are generally not resorting to self-employment because they cannot find paid work. He compared the incidence of self-employment two years after graduation and five years after graduation, and found that at all education levels, and for both men and women, self-employment had increased. For example, the rates increased between 1992 and 1995 from 6 per cent to 11 per cent for men and from 4 per cent to 6 per cent for women. Employment opportunities tend to increase as graduates make the transition from school to work, and so more paid employment would likely be available as graduates gain experience in the workplace. Thus an increase in the incidence of self-employment for more experienced graduates would suggest that many of these graduates choose self-employment over paid employment.

In 1999, almost all of the self-employed youth 15 to 29 worked in the service sectors. Through the 1990s the strongest annual average growth rates in youth self-employment were found in educational services, professional, scientific and technical services and the management, administrative and other support sectors.

How successful is self-employment?

Finnie found that about two-thirds of self-employed graduates were able to retain their self-employed status in the three-year survey interval. *(Table 3)* That said, a significant proportion (31 to 38 per cent) of those who were initially self-employed had switched to a paid job three years later. Some who moved from self-employment to paid employment may not have succeeded in starting up their own business.

About 4 per cent of females and 7 per cent of males switched from paid employment to self-employment over the three years. For this group the opportunities to start a business may have grown over the three-year interview period. It takes time to gain the experience, contacts and access to start-up capital that is necessary to start a business. The results were quite similar for 1986 graduates and 1990 graduates.

Table 3
Employment Status in the First and Second Interviews of the National Graduates Surveys, Males and Females, Canada, 1988 to 1991 and 1992 to 1995, per cent

	1986 Graduates 1988 to 1991		1990 Graduates 1992 to 1995	
1st interview ↓				
2nd interview →	Paid	Self	Paid	Self
Male				
Paid	94	6	93	7
Self	31	69	32	68
Female				
Paid	96	4	96	4
Self	38	62	34	66

Source: Finnie (1999)

Earnings of the self-employed tend to be lower than those for paid employees. Most recent data available from the Survey of Consumer Finances show that in 1997, the average earnings of self-employed youth 25 to 29 years old was only 75 per cent of the earnings of paid employees 25 to 29 years old.

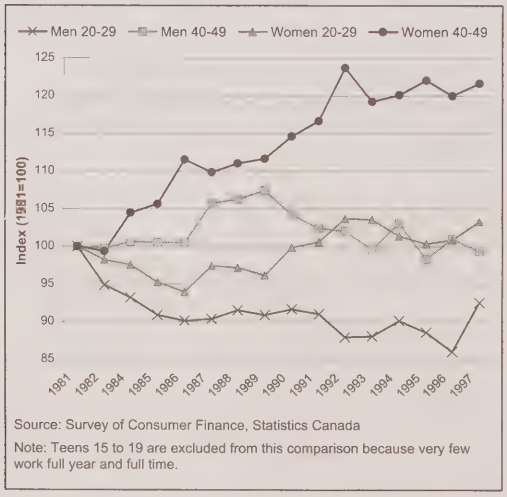
Earnings of Youth

Young peoples' real earnings unchanged between 1991 and 1997

The Survey of Consumer Finances indicates that young men 20 to 29 suffered real earnings losses following the 1981 recession and their earnings continued to slide following the 1991 recession. After a rebound in 1994, real earnings of young men returned to 1991 levels but were still 10 per cent below 1981 levels.

Young women 20 to 29 have shown improvements in their real earnings relative to young men in the past two decades. Young women had smaller real earnings losses than young men following the 1981 recession. Their real earnings grew from 1986 to 1992 and then fell back to 1981 levels in 1995. Their earnings were flat for the next two years. *(Figure 11)*

Figure 11
Real Full-year Full-time Earnings, Canada, 1981-1997, 1981=100



Source: Survey of Consumer Finance, Statistics Canada

Note: Teens 15 to 19 are excluded from this comparison because very few work full year and full time.

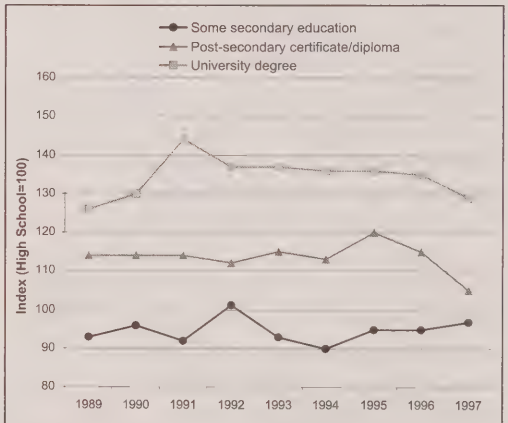
Youth have lost ground to older workers

From the 1970s through the early 1980s, the earnings of youth fell relative to the earnings of adults in several OECD countries, including Canada. This trend has continued in the 1990s, albeit at a much slower pace. The entry of the baby boom generation into the job market in the late 1970s and early 1980s is a common explanation for this adverse trend in the relative earnings of youth. However, these demographic factors have been largely reversed since then, without any corresponding improvement in relative earnings. Possibly, the negative impact on youth earnings of the weak overall labour market in the 1990s offset the positive impact of demographic developments. With recent improvements in the youth labour market, there are some indications that the downward drift in youth earnings may be starting to reverse itself in Canada, especially for more educated youth. Additional data are needed before a new trend is confirmed.

Earnings premiums for education have been relatively stable

The relative earnings of youth at different levels of education have changed little over the 1990-97 period. *(Figures 12 and 13)* This seems to indicate that the labour market for educated youth has been fairly well balanced, with growth in demand matching the increasing supply of young post-secondary graduates. Most recent earnings data (not shown) suggest that earnings of university graduates have increased in 1998 and 1999 relative to earnings of less educated

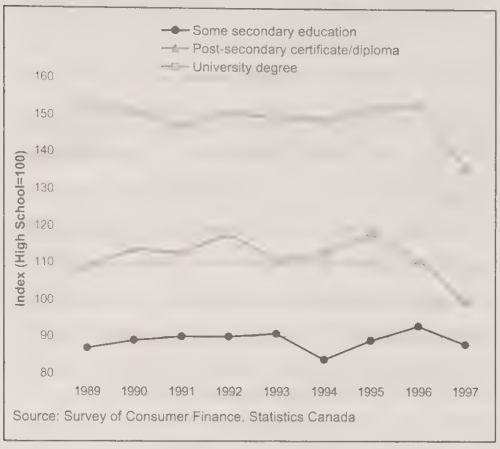
Figure 12
Real Full-year Full-time Earnings, Men 20-29, Canada, 1989-1997, High School=100



Source: Survey of Consumer Finance, Statistics Canada

youth. More data will be needed to confirm a trend towards an increasing premium for university-educated youth.

Figure 13
Real Full-year Full-time Earnings, Women 20-29, Canada, 1989-1997, High School=100



Source: Survey of Consumer Finance, Statistics Canada

Women enjoy a higher earnings premium on a university education than men do, and their high levels of enrolment in university suggest that they are taking advantage of this.

A high school diploma does not increase earnings significantly – at least in the short run

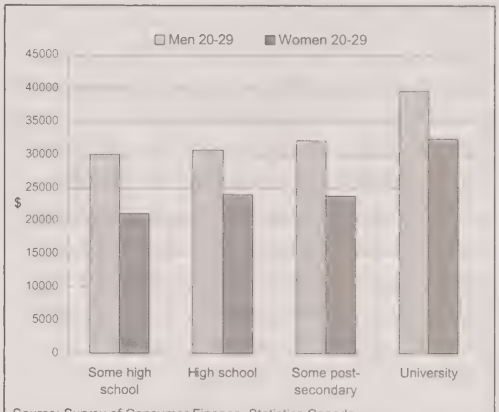
Young people may neglect to consider the long-term benefits of completing a high school education if they focus on short-term earnings rather than on their future job prospects. Young men, especially, can make relatively good wages if they drop out compared to those who finish high school. Young men 20-29 who have dropped out and are working full-year, full-time earn about 5 per cent less than young men who graduate from high school. Young women 20-29 who have dropped out earn about 10 per cent less than young women who graduate do.

What young people may fail to realise is that the returns to a high school education are far higher in the long term because graduates can expect higher employment rates and better job prospects.

Young women continue to earn less than young men

For all levels of education, real earnings of young women aged 20 to 29 are less than for men aged 20 to 29. The gap is widest for those with less than high school education. *(Figure 14)*

Figure 14
Real Full-year Full-time Earnings, Men 20-29 and Women 20-29, Canada, 1997



Source: Survey of Consumer Finance, Statistics Canada

Skills and Knowledge Opportunities: High School and Post-secondary Graduates

High school dropout rates are falling

According to the Labour Force Survey the dropout rate declined from 17.1 per cent in 1990 to 11.9 per cent in 1999. This rate represents the percentage of individuals 20 to 24 years old whose highest level of education is less than high school, and who are not students. The high school dropout rate for young men 20 to 24 was about 5 percentage points higher than for young women in the 1990s.

There are large regional variations in the high school dropout rate. Generally, lower rates are found in Ontario and the western provinces, and higher rates in Québec and the Maritimes. According to the School Leavers Follow-up Survey, in 1995 the dropout rate for 24 year-olds

was the lowest in Alberta and Saskatchewan (11 per cent). Prince Edward Island had the highest dropout rate (21 per cent). Very high dropout rates were also found in the Northwest Territories (which included Nunavut at the time the measure was taken) and in the Yukon. Aboriginal young people in particular have high dropout rates.

Room for improvement in skills of high school students

With the growing importance of technology in the workplace, mathematical skills and aptitudes are important to maintain a country's international competitiveness. The **School Achievement Indicators Program (SAIP)** monitors the level of achievement of 13 and 16 year olds in a number of subjects, including math. They report that in 1997 only 60 per cent of 13 year-old and 16 year-old students had math skills commensurate with the standard achievement level for their age. Problem-solving skills were particularly low.

The results vary widely from one province to another. Québec students aged 13 and 16, particularly Francophones, have the best performance of all the provinces, followed closely by Alberta students.

Canadian Grade 8 students (13 and 14 year olds) scored slightly above average in the **Third International Mathematics & Science Study (TIMSS).** Canadian students had scores better than or equal to the scores of students in 30 of the 41 countries that took part in the assessment of the math skills of Grade 8 students.

Decline in the Number of Trade-vocational training graduates

According to administrative data on education collected by Statistics Canada, full-time enrolment in vocational programs at public trade schools and community colleges fell slightly from 1983 to 1997. In 1997, there were about 13,000 fewer graduates than in 1983. Each year, approximately 20 per cent of those enrolled withdraw from their program before completion.

Steady increase in the number of post-secondary graduates in the 1980s and well into the 1990s

Despite decreases in the Canadian youth population 15 to 24 in the 1980s and slow growth in this age group in the 1990s, the number of university and community college graduates rose strongly over these two decades. As a result, the proportion of youth who completed a community college diploma or university degree rose steadily through both the 1980s and 1990s.

According to the 1996 Census, 47 per cent of young people 25 to 29 years old had graduated from a university or community college program. The percentage of young people in this age group with a university degree, diploma or certificate grew from 17 per cent in 1986 to 25 per cent in 1996, while the percentage with a community college diploma grew from 17 per cent in 1986 to 22 per cent in 1996.

Administrative data on education from Statistics Canada show that after twenty years of steady growth, the total number of university graduates fell by 3.6 per cent between 1996 and 1997. The drop in the number of graduates is due in large part to a downward trend in part-time enrolments in bachelor's programs since 1992. Full-time university enrolments have stayed relatively stable over the same period.

Women make dramatic progress in university education

In the mid-1970s, women made up only 40 per cent of all post-secondary graduates. By 1997, 58 per cent of community college graduates, 60 per cent of bachelor's degree graduates and 51 per cent of master's degree graduates were women. Women made up 36 per cent of all graduates at the doctoral level in 1997.

More women are studying in traditionally male fields such as engineering, but they still make up a very small proportion. Most women still go into traditionally female disciplines such as the social sciences, nursing or education.

Quality of Education-Job Match

A shortage of skills in young graduates

In today's rapidly changing economy, jobs are becoming more complex and employers are demanding more highly skilled workers. Employers often complain about skill shortages, while many young graduates have trouble finding jobs that match their skills. The Expert Panel on Skills (1999) explains how the mismatch occurs. The Panel did not find evidence of a generalised shortage of *technical skills* in young high school and post-secondary graduates. However, the Panel did find a widespread and persistent shortage among recent graduates of *management skills*, such as the ability to undertake organisational activities and to manage people and budgets, and of *essential skills*, such as the ability to read, write, calculate and operate basic computer appliances. These skill shortages occur even for entry-level positions. The Panel observed that these skills are not being taught in the elementary, secondary and post-secondary curriculum, and employers believe that young people only acquire them through experience. Thus employers may be unwilling to hire young graduates, despite their technical qualifications for the job.

The mismatch is apparent in the low quality of the job-education match for youth entering the work force. For example, according to the National Occupational Classification (NOC), in 1998 one-quarter of employed youth 20 to 24 years old with a bachelor's degree and one-fifth of employed youth 25 to 29 years old with a bachelor's degree worked at jobs that required skill levels well below the university level. Data from the Canadian panel of the International Adult Literacy Survey suggest that a mismatch between jobs and skills is likeliest to occur for university graduates with low levels of literacy skills.

The nature of the job-education match

A summary Krahn and Bowlby (2000) offers some insights into the job-education match for those graduating from post-secondary programs. Two approaches to the job-education match are taken.

- The **program-job-fit** approach determines whether a post-secondary graduate has succeeded in finding a job for which his or her program has been designed. It also considers whether an employer has specified that a post-secondary credential is required.

- The **generic-skills** approach examines generic employment skills valued-added in post-secondary programs and the degree of fit between jobs and such skills. Generic skills may include: analysing critically, problem-solving, writing well, working effectively with others, leading and supervising others, and using new technologies in the workplace. In today's rapidly changing economy, the transferable nature of generic skills makes them highly valuable to both employers and employees.

Using data from the 1990 and 1995 National Graduates Surveys, Krahn and Bowlby find that only 60 per cent of 1990 post-secondary graduates were working in a job with a good program-job-fit in 1992. Moreover, only 40 to 50 per cent used their acquired skills and knowledge to a great extent in the job. Among university graduates, the program-job-fit in terms of credentials was about 10 to 20 per cent higher for those with Masters and Doctoral degrees.

Skills ratings by employers and graduates

In their study of the relationship between skills and lifelong learning, Evers, Rush and Berdrow (1998) asked:

- How do employers rate the skills of recent university graduates?
- How do the graduates rate themselves?

They reported the results from a study done in Ontario from 1985 to 1990 of 800 students, 800 graduates and 440 employers. The subjects were asked to evaluate the general skills necessary for job performance and lifelong learning. Employers and employees ranked four skills.

1. **Managing self**: a basic requirement for the job, and consistently ranked among the highest skills of university graduates.

2. **Communicating**: a fundamental skill, and the second highest ranked of university students.

3. **Managing people and tasks**: a skill valued highly by employers, but one that is not well developed among university graduates.

4. **Mobilising innovation and change**: the skill in highest demand by employers, but the least well developed in post-secondary education institutions.

Overall, the study shows that:

- According to employers, the most demanded skills are managing people and tasks, and mobilizing innovation and change.
- But according to employers and self-rating competency scores of graduates, those skills are the least supplied.

Not surprisingly, those graduating from programs designed to train graduates for specific occupations had the highest program-job-fit in terms of credentials. These occupations include health sciences, engineering, law and medicine. Less than half of university arts graduates – from fine arts, humanities and social sciences – indicated they had a good program-job-fit in terms of credentials.

However, some programs that did not exhibit a good job-education match based on a program-job-fit approach may still be making a significant contribution in developing generic skills. For example, university undergraduates in the arts, who ranked lower in the program-job-fit, ranked the highest in generic skills such as critical thinking and writing, whereas those in health science programs, which ranked highest in the program-job-fit, scored below average on critical thinking and writing skills. As well, graduates of math and physical science programs ranked the highest in problem-solving and critical thinking skills and using new technology. Thus, traditional arts and science programs may be developing the essential skills that can potentially lead to a good generic skills fit. Conversely, post-secondary programs that teach the necessary technical qualifications for a job, and thus provide a good program-job-fit based on credentials, may not be developing generic skills to the same extent.

Although traditional arts and science programs may develop good generic employment skills, students who graduate from these programs do not fully utilise these skills in their jobs. Krahn and Bowlby surmise that a poor job-education match may occur when employers focus on credentials rather than on generic skills when they hire graduates.

Krahn and Bowlby also found that a significant minority of post-secondary graduates have low skills in teamwork and leadership, which supports the findings of the Expert Panel on Skills about the dearth of management skills in young graduates.

Improving the job-education match

The Expert Panel on Skills concludes that young people can improve their essential and managerial skills if elementary, secondary and post-secondary school curricula focus on developing these skills. The Panel suggests that elementary and secondary schools offer "work studies" programs and continuously monitor the

levels of essential skills of students. They would like to see stronger links developed between school and the world of work as well as more young people in apprenticeship programs. The Panel also noted that post-secondary schools might better develop the skills of students if post-secondary operating funding were increased and resources to science and technology programs enhanced.

Krahn and Bowlby caution that resources for occupationally specific programs should not be enhanced at the expense of traditional arts and science programs, given that such programs often develop high levels of generic skills.

They suggest that if employers were encouraged to look beyond the programs where they recruited in the past and towards programs that developed the generic skills they needed, the education-job match might improve.

Youth in Trades Technology and Apprenticeships

Changing technology affects a wide range of sectors

Rapid technological change has led to concern about whether Canada is training enough youth in scientific and technical fields. Emphasis is often placed on technologies related to computers and telecommunications. However, changing technology is creating demand in a much wider range of sectors, and technical and scientific fields of study are found at all levels of education. The increasingly complex and sophisticated machines used for health diagnosis and treatment require appropriately trained technologists, for example. Pharmaceutical research and production requires highly trained personnel; the same is true of avionics.

Trades and apprenticeships are declining

The number of trade-vocational high school graduates fell slightly from 1990 to 1997, after a very large drop from 1983 to 1990. However, the share of graduates in technically oriented fields increased. Technical fields of study at the trade-vocational level continue to be male-dominated. The proportion of youth with trades certificates dropped from 1986 to 1996.

Technical and scientific fields of study are found at all levels of education.

- At the high school level, trade-vocational programs prepare students for direct entry into the labour market.
- In trade-vocational programs, students can attain trades certificates after 3 to 12 months. These programs typically do not require high school for admission.
- Apprenticeships combine on-the-job training and an in-school portion.
- Community college and university programs also offer technical fields of study.

From 1991 to 1997, the number of young people of typical apprenticeship age (19 to 30 years old) who completed apprenticeships fell. This may be due in part to difficulties in obtaining the hours of work required to complete an apprenticeship. Apprenticeships in high technology areas are a small part of total apprenticeships, which makes it difficult to discuss trends in their representation.

Modest increases in technologically oriented fields at the post-secondary level

If technological occupations are to be an increasing share of employment of post-secondary graduates, the share of graduates in technologically oriented fields of study must increase. In general, technical fields of study increased their share of graduates from 1990 to 1997, but in most cases the increases were modest. In many cases, the share of technically oriented fields of study among all graduates was lower than it had been in the mid-1980s.

Computer science is a good example of the trend. The share of computer science graduates among university and community college graduates increased slightly from 1990 to 1997, but in 1997 was still below the 1987 level. At the trade-vocational level, however, the share of those with computer science related certificates was higher in 1997 than it had been in 1987.

At the university level, the largest gain in the share of graduates for a science or engineering field of study from 1987 to 1997 was in biology. All other science and engineering fields of study had losses of share or small gains.

At the community college level, the largest gain of share over this period was in environmental and conservation technologies, while electronic engineering technologies had the largest loss of share.

The outcomes of technically oriented fields vary widely

While outcomes for health, computer science, and engineering graduates have generally been quite positive, it is perhaps surprising to sometimes find higher rates of unemployment and underemployment, lower earnings, and some dissatisfaction amongst pure and applied science graduates, especially at the undergraduate level. These patterns have not changed a great deal since 1982.

However, the percentage of science and technology graduates at the Master's and Doctoral levels have increased in recent years, suggesting that some careers have a certain allure for students and presumably auguring well for the nation's human resources base in science and technology.

It is difficult to predict where the specific demand for technologically oriented graduates will be in the future. The more portable are the skills acquired by technical and science graduates, the more likely they will be able to keep pace with the rapidly changing economy.

Labour Market Information

Labour market information is a crucial element in the school-work transition for youth. As stressed in the report of the FLMM Labour Market Information Working Group, timely and relevant labour market information is increasingly important to the smooth functioning of the labour market, ensuring that Canadians have the information they need to make decisions about how they can make the most opportunities in a dynamic economy.

In response to the clear need for more labour market information for youth, a strategy endorsed by the FLMM in 1999 to develop a suite of national products and pilot some provincial prototypes was initiated for the development of labour market information products for youth. The aim of these products is to assist young people to understand the world of work and to make effective transitions from school to the labour market. The products will also illustrate that educational decisions made today can impact future labour market opportunities and outcomes.

One of the top priorities is to make sure that youth are aware that this information is available. According to a 1999 Angus Reid survey, only 41 per cent of young people aged 16 to 30 have ever used labour market and career information to help them in a job search. Those who used labour market information identified school as the best source of information, followed by the federal and provincial governments.

The labour market information strategy is new, and as yet there has not been a systematic inventory of all the products available, nor of their effectiveness and accuracy. Work needs to be done to evaluate the current array of labour market information products.

Report on Outcomes in the Youth Labour Market

Presented here is a report on the eight outcomes set out by Ministers to evaluate the recent developments of youth in the labour market.

OUTCOME 1:

Work opportunities available to youth

The chances of finding a job have improved considerably for youth in the last two years. The employment rate for youth 15 to 24 grew rapidly through 1998 and 1999. In June 2000, the employment rate for youth was 55.7 per cent.

The rising trend in school enrolments will likely have a lasting downward effect on employment rates. For youth employment rates to rise further, continued strength in the economy and high adult employment rates are needed.

In the last decade the percentage of employed youth working part-time rose steadily from 37 to 45 per cent. Those not attending school full-time showed the largest increase and many of them are working part-time involuntarily.

Employment prospects continue to worsen for youth with lower levels of education. Employment rates for youth with less than post-secondary education have been on a downward trend for the past 25 years. The decline has been most acute for those with less than high school education.

OUTCOME 2:

The number of youth who are unemployed

The youth unemployment rate started to decline in early 1998 and is finally approaching pre-recession levels. In June 2000, the unemployment rate for youth 15 to 24 was 11.8 per cent, about 1 percentage point above its pre-recession low.

Inexperienced, less educated youth have worse labour market outcomes than other youth. In 1999 teens 15 to 19 who were not in school full-time had an unemployment rate 7 percentage points above the rate for youth 20 to 24. The number of teens who had no labour market experience increased threefold between 1989 and 1998 to 26 per cent.

Sustained strength in the Canadian economy is needed for a continued decline in youth unemployment rates. Employment prospects are good for youth who are obtaining the necessary education and skills. Long-term employment prospects are doubtful for youth who have not completed their education and who leave school to take advantage of improved labour market conditions.

OUTCOME 3:

Successful entrepreneurial activity by youth

In 1999, there were 267,000 self-employed youth aged 15 to 29 in Canada, or 6.9 per cent of all youth aged 25 to 29. Self-employment rates for youth increased slightly during the 1990s, suggesting that entrepreneurial activity was fairly stable during this time. Almost all self-employed youth work in the service sectors.

In 1995, about 11 per cent of male and 6 per cent of female post-secondary graduates were self-employed. Many post-secondary graduates choose self-employment over paid employment and after they gain some experience in the workforce, they decide to strike out on their own. About two-thirds of graduates who started out as self-employed were able to retain their self-employment status five years after graduation.

Earnings for self-employed youth 25 to 29 tend to be about 25 per cent lower than earnings for paid employees.

OUTCOME 4:

Real earnings of youth

Real earnings of young people aged 20 to 29 did not improve in the 1990s. Young men had already experienced a significant decline in their earnings during the 1980s and by 1997 their real earnings were still 10 per cent lower than in 1981. Young women had about the same level of real earnings in 1997 as they had in 1981. The gap in earnings between younger and more experienced workers widened in the 1980s and continued through the1990s.

With recent improvements in the labour market, there are some indications that the downward trend of youth earnings will soon reverse, especially earnings of youth with higher education.

The differences between the earnings of those with higher education and those with lower education were fairly stable from 1990 to 1997, suggesting that the rising numbers of post-secondary graduates are being absorbed readily into the labour market without significantly affecting wage differentials. More recent data suggest an increasing premium for university graduates.

Obtaining a high school education does not provide a large benefit in terms of earnings for young people – at least when they start out. Male dropouts 20 to 29 years old make about 5 per cent less in full-year, full-time earnings than male high school graduates; female dropouts make about 10 per cent less than female graduates. There is a significant earnings premium for university graduates, especially for women.

For all levels of education, young women continue to earn less than young men do. The gap between the earnings of young men and young women is widest for those without a high school diploma.

OUTCOME 5:

The percentage of secondary and post-secondary graduates

The high school dropout rate in Canada declined steadily through the 1990s. According to the Labour Force Survey the dropout rate for youth 20 to 24 years old, was 11.9 per cent in 1999, compared to 17.1 per cent in 1990. Males were more likely to drop out than females. Aboriginal young people have a much higher dropout rate than others do.

The 1996 Census shows that 47 per cent of young people 25 to 29 years old had graduated from a university or community college program, a considerable increase from the 34 per cent share in the 1986 Census. In 1996, 25 per cent had a university diploma and 22 per cent had a community college degree.

The increasing percentage of women among university and community college graduates is an important trend that continued in the 1990s. Women are now a majority of graduates at both the university and community college levels.

OUTCOME 6:

The number of youth who indicate their training has been relevant to the jobs they have obtained

The Expert Panel on Skills did not find evidence of a generalized shortage of technical skills among high school and post-secondary graduates, but they did find a pervasive shortage of management and essential skills.

An analysis using data from the 1990 and 1995 National Graduates Surveys shows that only about 60 per cent of post-secondary graduates work in jobs that are a good match to their credentials and only 40 to 50 per cent use their acquired skills and knowledge to a great extent on the job. Those who graduate from occupationally specific programs such as health sciences, engineering, law and medicine have

the best match between their credentials and jobs. However, they tend to have lower generic skills than arts and science graduates.

In today's changing labour market, a broad range of generic skills may actually be more useful in some professions than specific job credentials. Liberal arts programs develop high levels of communication and critical thinking skills, for example.

Leadership and teamwork skills are not well developed at the post-secondary level.

OUTCOME 7:

The percentage of youth training in trades, technologies and apprenticeships

Completions of trade-vocational high school programs and trade certificates declined during the 1990s. However, a greater share of high school students graduated from technically oriented fields.

From 1990 to 1997, most technical fields of study increased their representation somewhat among post-secondary graduates, although the gains were not enough to return to share of those in technical fields to peak levels of the mid-1980s. The percentage of science and technology graduates at the Master's and Doctoral levels has increased in recent years.

The labour market conditions for graduates in technical and scientific fields of study vary widely, which may be one reason why there has not been more rapid growth of graduates in these fields.

OUTCOME 8:

Access to locally relevant, timely labour market information and career-planning information by youth

In response to the clear need for more labour market information for youth, a strategy endorsed by the FLMM in 1999 to develop a suite of national products and pilot some provincial prototypes was initiated for the development of labour market information products for youth.

A systematic inventory of all the labour market information products available to youth needs to be conducted, and their effectiveness and accuracy ascertained.

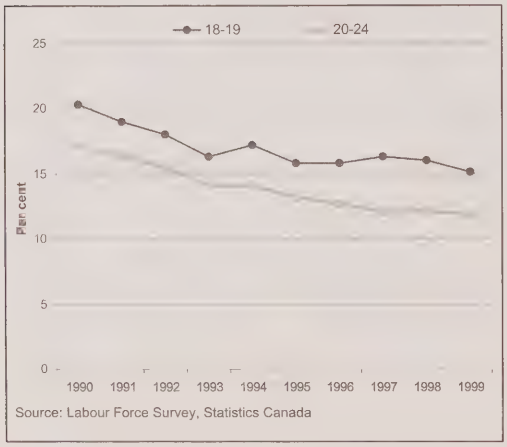
Youth at Risk

High School Dropouts in Canada

The Dropout Rate in Canada

Canada's dropout rate has fallen steadily for several decades and continued to decline through the 1990s. The dropout rate or non-completion rate refers to the percentage of people in a specified age group who are not students and who have left high school without graduating. According to the Labour Force Survey, the dropout rate for 20 to 24 year olds fell from 17.1 per cent in 1990 to 11.9 per cent in 1999. *(Figure 15)*

Figure 15
Dropout Rates for Youth 18-19 and 20-24, Canada, 1990-1999



Source: Labour Force Survey, Statistics Canada

Many young people in Canada leave high school temporarily and later return to complete their education. Thus the dropout rate for youth at the typical age of graduation tends to be higher than the rate for older youth. In 1999, the dropout rate for 18 to 19 year olds exceeded the rate for 20 to 24 year olds by 3 percentage points.

When comparing Canada's performance to other OECD countries, it is worth noting that Canada has a "second chance" education system that allows people who did not complete their last year of high school to subsequently obtain high school accreditation. This is one reason why Canada's graduation rate is lower than the OECD average. In 1998, the ratio of upper secondary graduates to the Canadian population at the typical age of graduation was 72 per cent, well below the OECD average of 79 per cent. However, OECD estimates (OECD, 2000b) also show that in 1998 only 13 per cent of 20 to 24 year olds in Canada could be considered dropouts insofar as they were neither enrolled in nor had completed high school, compared to the OECD country mean of 20 per cent. Thus, Canada's second chance system appears to be beneficial for these older youth.

One worrisome characteristic of dropouts in Canada is their low levels of literacy compared to Canadian graduates and also compared to dropouts in many other OECD countries. Because dropouts in Canada have such low literacy levels, their prospects in the labour market may be even worse than those for dropouts in other OECD countries. Employers attach great importance to transferable skills such as literacy in today's knowledge-based economy, and dropouts with very low literacy levels are at great risk of not being successfully integrated into the labour market.

Why do young people drop out?

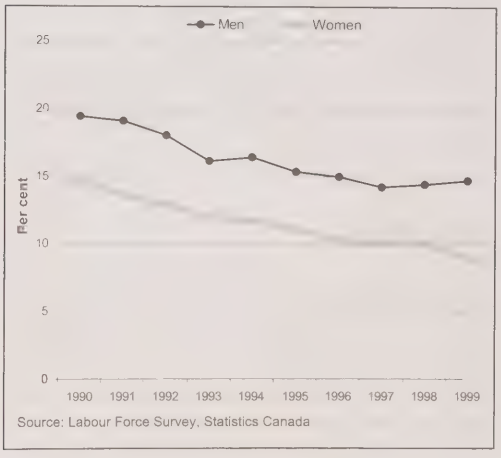
There is no typical dropout and the factors that influence the decision to drop out are complex. According to the 1991 School Leavers Survey, 40 per cent of both male and female dropouts said they dropped out primarily for school-

related reasons. Of the remainder, males tended to cite workplace responsibilities as their primary reason for dropping out, whereas females tended to cite family responsibilities.

The School Leavers Survey also shows that dropouts are more likely than graduates not to enjoy school and to be less engaged in school activities. They are more likely to under-perform in school. Academic failure beginning in the early grades is a strong predictor of dropping out and the interaction of underachievement and low self-esteem builds over several years as students disengage from school.

High school dropouts are more often males than females. While dropout rates for both males and females declined from 1990 to 1999, an average 5-percentage point gap has persisted between the two groups for the last decade. *(Figure 16)*

Figure 16
Dropout Rates by Gender for Youth 20-24, Canada, 1990-1999



Source: Labour Force Survey, Statistics Canada

Why are males more likely to drop out than females? They may focus on the relatively high wages they can command in the short-term without realising that by dropping out, they have a higher risk of future unemployment. The School Leavers Follow-up Survey shows that in 1995, the median wage of male dropouts at $400 per week was much higher than for female dropouts ($260) and only slightly lower than for male graduates ($430).

The wage differentials come about because male and female dropouts tend to work in very different occupations. Three in five men who leave school work in blue-collar jobs, while women work primarily in entry-level clerical and service jobs. Men are also more likely to go into trade, vocational and apprenticeship programs after they leave high school.

Many young women drop out of high school because they are pregnant or have dependent children. The School Leavers Survey reported that in 1991 three in ten young women 18 to 20 years old who had left school had dependent children. Often single mothers, these young women are far more likely to face a future of poverty and unemployment than the young women who graduate are.

Male dropouts tend to disengage from school by moving into the workforce, whereas female dropouts do not. The School Leavers Survey reports that male dropouts are more likely to have worked more than twenty hours a week in their final year of school than males who graduate. Female dropouts, on the other hand are more likely than female graduates not to have worked at all.

Certain socio-economic factors are associated with the incidence of dropping out. Those who live in a single or no-parent family, who have parents with low levels of education or whose families and peers have negative attitudes towards school have a higher risk of dropping out.

The Prospects for High School Dropouts in the Labour Market

Those who have not completed high school are at a serious disadvantage in today's economy. In an economy driven by market globalisation and technological change, today's labour market has become far more competitive and demands higher levels of skills.

Between 1990 and 1999, the average unemployment rate for adults 25 to 44 who had some high school was 15.1 per cent, 6 percentage points higher than the rate for those who completed high school *(Table 4)*.

Table 4
Average Unemployment Rate for Adults 25-44, Canada, 1990-1999, per cent

Education level	Unemployment rate
Some high school	15.1
High school graduate	9.1
Post-secondary certificate or diploma	7.7
University degree	5.1

Source: Labour Force Survey, Statistics Canada

Dropping out also limits one's chances to improve future labour market outcomes. Many high school dropouts lack the skills or credentials they need to undertake further education or training. The School Leavers Follow-up Survey shows that only one-quarter of high school dropouts had taken education or training courses after they left school, compared to four-fifths of graduates.

The Benefits to Lowering Dropout Rates

A student who stays in high school benefits – and society benefits too. A person who graduates from high school can expect higher lifetime earnings, lower unemployment rates and more satisfying work experiences than one who does not graduate.

In preliminary work, Vaillancourt and Bourdeau-Primeau (forthcoming) estimate rates of return for those completing high school compared to those who drop out at different high school grade levels. The monetary private rate of return is defined as the increase in net-of-tax earnings relative to costs of completing high school. Vaillancourt and Bourdeau-Primeau find that the monetary private rate of return for completing a high school education compared to a grade ten education is substantial – 41 per cent for men and 54 per cent for women.

Because high school graduates earn more over their lifetimes than dropouts do, governments can also expect benefits in terms of higher tax revenues. Vaillancourt and Bourdeau-Primeau estimate that the total (private and public) monetary rate of return of Canada's students completing high school compared to those that drop out at grade ten is about 17 per cent. The estimate does not account for lower social transfers that would be paid to those whose earnings are enhanced through education.

There are also non-monetary benefits to completing high school for individuals and society, such as greater personal satisfaction, better health for individuals, lower crime and greater social cohesion.

Summary

It pays to finish high school. Yet in 1999, 11.9 per cent of 20 to 24 year olds were high school dropouts. The reasons that students leave high school are diverse and complex, and there is no simple solution to the dropout problem.

- One option suggested by the OECD is to create alternate pathways for students, which would offer workplace experience and the chance for students to explore a variety of technical, occupational and vocational programs. These programs need to be flexible and open-ended, and have the potential to lead to post-secondary

education. They also need to supply basic literacy and numeracy skills. They should not carry the stigma that has been associated with them in the past.

- Given the clear link between success in the workplace and high school completion, the time may have come to revise the legal age to leave school. In 1999, New Brunswick increased the minimum legal age to leave school to 18 years.

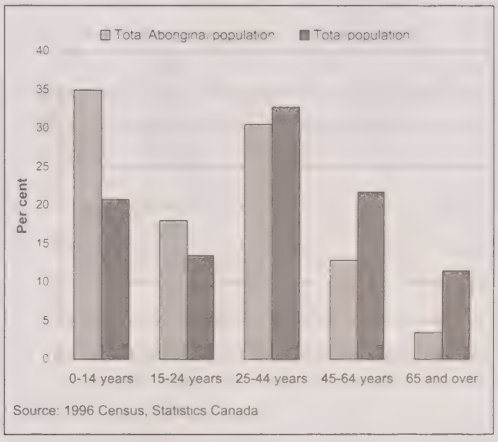
- Information campaigns such as the *Stay in School Initiative* to promote the benefits of high school completion could also be considered.

- More emphasis could be placed on improving basic literacy skills of students in the early grades of elementary school.

Aboriginal Youth

Aboriginal youth are among the fastest growing segment of Canada's youth population. According to the Census there were 144,000 Aboriginal youth 15 to 24 in Canada in 1996, or 3.7 per cent of Canada's total youth population. Almost one-fifth of the total Aboriginal population are youth, compared to 13 per cent in the general population. *(Figure 17)* In this decade, the Aboriginal youth population is expected to increase by close to 20 per cent.

Figure 17
Age Distribution of Aboriginal and Total Population, Canada, 1996



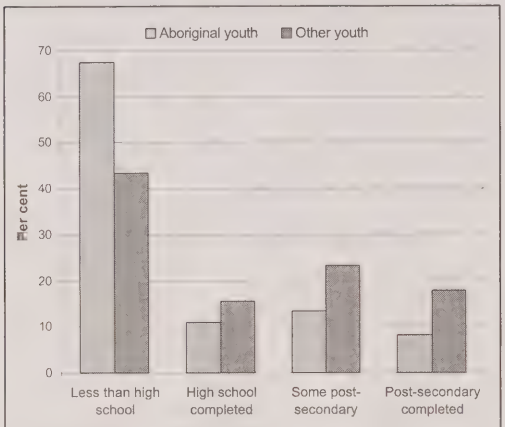
Source: 1996 Census, Statistics Canada

The Aboriginal youth population is concentrated in the Prairies and in the Northern Territories. One-half of Aboriginal people live in rural areas, often in isolated northern communities or on reserves. However, young Aboriginal people are more likely to live in urban centres than their elders. Aboriginal children under 15 years old make up 12 to 13 per cent of all children in Winnipeg, Regina, and Saskatoon.

Education Levels

Aboriginal youth have much lower levels of education than other youth do. *(Figure 18)* In 1996, two-thirds of Aboriginal youth 15 to 24 had not completed high school, compared to two-fifths of other youth.

Figure 18
Distribution of Aboriginal and Other Youth 15-24 by Educational Attainment, Canada, 1996



Source: 1996 Census, Statistics Canada

Note: Estimates include youth who are still in school and have yet to complete their education.

Comparisons to previous Census years are difficult to make because the Census questions that describe Aboriginal status changed in 1996 and because many people on reserves were unwilling to participate in the 1996 Census. Nevertheless, available comparisons between the 1996 and 1986 Census data suggest that educational levels have improved for young Aboriginal people. Between 1986 and 1996 the proportion of young adults aged 20 to 29 who had not completed high school fell from 60 per cent to 45 per cent. The proportion of young adults who had completed some form of post-secondary education rose from 16 per cent to 24 per cent.

Despite these improvements, the education levels of Aboriginal young adults relative to other young adults in Canada remained about the same in the 1990s as they were in the 1980s because the education levels also improved for the general population of youth. In 1996, Aboriginal people were three times as likely as other Canadians to have dropped out of high school. They were one-half as likely to have completed post-secondary education and one-fifth as likely to have a university degree.

Employment Prospects

Since Aboriginal youth have lower levels of educational attainment than other youth, it is not surprising that they also have lower employment rates, lower labour force participation rates and higher unemployment rates. According to the 1996 Census:

- 45.9 per cent of Aboriginal youth were in the labour force, compared to 61.4 per cent of other youth; and
- 31.2 per cent of Aboriginal youth were employed, whereas 50.5 per cent of other youth were employed.

Lack of education is not the only barrier facing Aboriginal youth. For the same level of educational attainment, Aboriginal youth tend to have lower employment rates and labour force participation rates than other youth. *(Table 5)*

Table 5
Labour Market Indicators for Aboriginal and Other Youth 15-24, Canada, 1996, per cent

	Aboriginal youth	Other youth
No high school diploma		
Employment rate	21.0	34.4
Participation rate	33.6	43.1
High school diploma		
Employment rate	49.6	59.3
Participation rate	65.0	68.6

Source: 1996 Census, Statistics Canada

Wannell and Caron (1994) report much lower employment levels for Aboriginal community college graduates than for other community college graduates. However, they also report

that Aboriginal youth with a university degree do as well as other youth in finding employment.

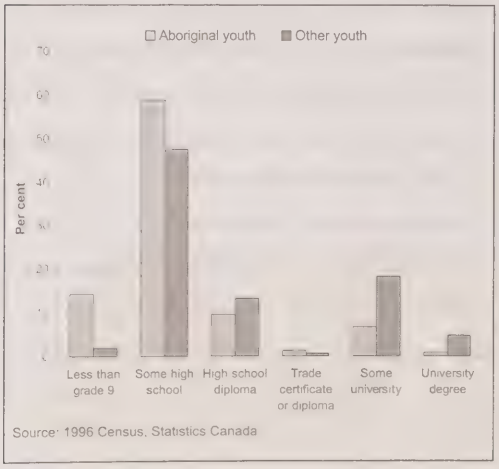
Aboriginal Youth in Saskatchewan

Saskatchewan is expected to have a more rapid growth in its Aboriginal population than any other province in Canada. Statistics Canada projects that Aboriginal people will make up 17 per cent of Saskatchewan's population in 2016 compared to 11 per cent in 1996.

Saskatchewan's Aboriginal population is, on average, 10 years younger than the rest of the population. Sixty per cent of Aboriginal people are under 25 years of age compared to 35 per cent for the rest of the Saskatchewan population.

The 1996 Census shows that Saskatchewan Aboriginal youth 15 to 24 have especially low levels of education: three-quarters have less than high school. Registered Indians, particularly those on Reserves, have the lowest levels. *(Figure 19)*

Figure 19
Distribution of Aboriginal and Other Youth 15-24 by Educational Attainment, Saskatchewan, 1996



Source: 1996 Census, Statistics Canada

Saskatchewan's Aboriginal population is under-represented in the labour market to an even greater degree than in Canada overall. Saskatchewan youth had an unemployment rate in 1996 of 11.9 per cent, well below the national average for youth, yet Saskatchewan Aboriginal youth had an unemployment rate of 34 per cent.

Aboriginal Youth in Manitoba

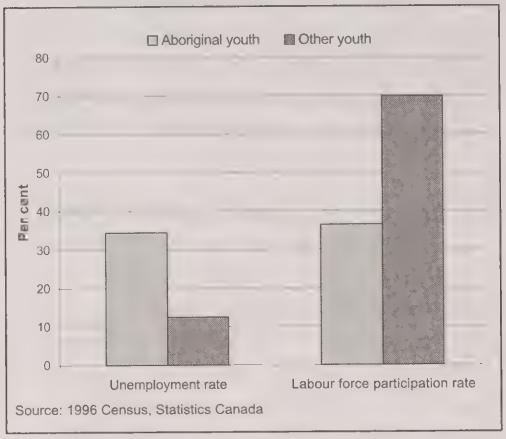
Manitoba's labour market is one of the strongest in Canada, with an average unemployment rate of 5.6 per cent for 1999, well below the national average of 7.6 per cent. Manitoba's youth are leading other youth with an average unemployment rate of 10.1 per cent, compared to the national average of 14 per cent.

Manitoba's labour supply has not kept pace. For two decades Manitoba has experienced low rates of in-migration, and while there are recent signs of gains in population through migration, a tight labour market is likely to persist. Skill shortages are being reported and will become an issue if current economic trends continue.

Given current in-migration trends, continued economic expansion may largely hinge on Manitoba's ability to include and retain Aboriginal youth in the labour market. However, Aboriginal youth have not been well integrated into the labour market. Their unemployment rate was 33 per cent in 1996, almost three times higher than the rate of other youth in Manitoba. Only 40 per cent of Aboriginal youth participate in the labour market and only 27 per cent are employed. *(Figure 20)*

Educational achievement will be essential to employment success for Aboriginal youth. Three in five Manitoba Aboriginal youth have less than high school education.

Figure 20
Labour Market Indicators for Aboriginal and Other Youth 15-24, Manitoba, 1996



Source: 1996 Census, Statistics Canada

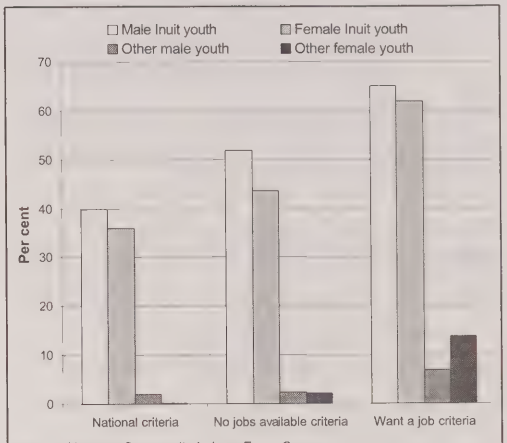
These challenges are likely to be accentuated in the coming years, when Aboriginal youth will make up a larger portion of the Manitoba Aboriginal population. As of 1996, 38 per cent of the total Aboriginal population was under the age of 15, while only 20 per cent of other Manitobans are under the age of 15.

Aboriginal Youth in Nunavut

Nunavut is predominantly an Inuit society: in 1999, the Inuit people made up 83 per cent of the 27,000 residents of Nunavut. Nunavut is also predominantly a young society. Fifty-six per cent of the Nunavut people are children and youth under 25 years of age and two in ten are youth aged 15 to 24. The Inuit youth population will likely grow rapidly in the next few decades, given that Nunavut's birth rate is over twice the average rate in Canada.

Inuit youth have few employment opportunities in the small, widely dispersed communities of Nunavut. They often have to migrate to centers with better employment prospects to look for a job. Inuit youth also have much worse employment prospects than other Nunavut youth do. Male Inuit youth have especially high unemployment rates. In 1999, almost 40 per cent of the Inuit youth labour force aged 15 to 24 were unemployed. *(Figure 21)* Many more Inuit youth wanted a job but were not actively looking for work because they were discouraged or they perceived that no jobs were available.

Figure 21
Unemployment Rates for Inuit and and Other Youth 15-24 by Criteria, Nunavut, 1999



Source: Nunavut Community Labour Force Survey

Note:
National criteria – persons available for work who: (1) are without work and actively looked for work in the last four weeks, or (2) are on temporary lay-off, or (3) have definite arrangements to start a new job within the next four weeks.
No jobs available criteria – refers to persons available for work who: (1) are without work and actively looked for work in the last four weeks or are not looking for work because they perceive no jobs to be available, or (2) are on temporary lay-off, or (3) have definite arrangements to start a new job within the next four weeks.
Want a job criteria – refers to persons who are not currently employed, but say that they want a job. For persons who are on temporary lay-off or had a job to start within four weeks, 'want a job' refers to a different job.

Education levels of Inuit youth have improved substantially over the past 25 years and will continue to show improvement over the longer term. Inuit youth are staying in school longer, reaching a higher level of education and seeking out post-secondary opportunities.

Aboriginal Youth in the Northwest Territories

According to 1996 Census estimates Aboriginal people make up 48 per cent of the population in the Northwest Territories. A slightly higher proportion of young Aboriginal people will be making their way into the labour market: Aboriginals make up 55 per cent of youth 15 to 24 and 60 per cent of children under 15.

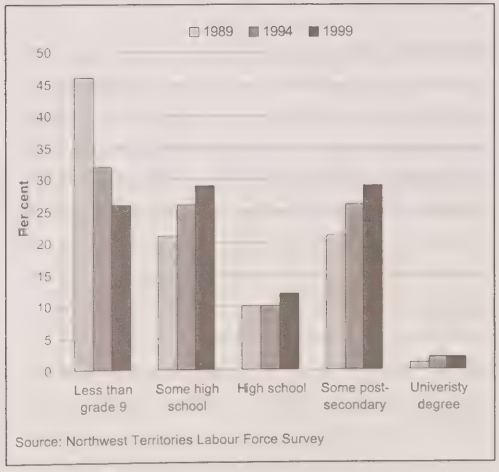
Population projections estimate a 15 per cent increase in the number of Aboriginal young adults 20 to 29 years old in the next 10 years.

These young people must compete with well-educated workers who have migrated to the Northwest Territories for employment. Some 15 per cent of the total population of the Northwest Territories that are 15 years of age and older are not Aboriginal and have lived in the Northwest Territories five years or less.

Their 89 per cent employment rate is considerably higher than the overall Northwest Territories employment rate of 68 per cent.

Only 2 per cent of Aboriginal people in the Northwest Territories have university degrees compared with 24 per cent of others in the Northwest Territories. Education levels are increasing, however. In ten years, the number of Aboriginal people in the Northwest Territories with less than grade nine as their highest level of education has dropped from 46 per cent to 26 per cent. Moreover, the number of Aboriginal people with some post-secondary education has been increasing. *(Figure 22)*

Figure 22
Distribution of Aboriginal People by Educational Attainment, Northwest Territories, 1989, 1994, 1999



Source: Northwest Territories Labour Force Survey

Aboriginal Youth in the Yukon

Yukon's Aboriginal people comprise one-fifth of the total Yukon population of 31,000. Fifteen per cent of Aboriginal people are youth 15 to 24 years old. Although two-thirds of the Yukon population live in Whitehorse, over 55 per cent of Aboriginal people live in and around rural settlements that range in size from 60 to 1280.

Unemployment rates are much higher in rural Yukon and vary greatly by community, season and year. Employment in communities is largely driven by the need for government services, seasonal tourism and project-type construction, and can fluctuate substantially. Many employment opportunities are filled by people from outside the community, owing to a lack of locally trained workers. Seasonal and short-term employment inhibits access to EI benefits and associated programs and services.

Through recent Labour Market Development Agreement consultations with Aboriginal people and community representatives, several issues have been identified that relate to the circumstances of Aboriginal youth in the Yukon. Receiving adequate training continues to be a challenge for many Yukon Aboriginal people. The requirement to relocate from their home community to receive high level and professional training is a financial burden, and many Aboriginal people do not want to leave their families for long periods of time.

There is a need to continue to provide life skills and wellness programs to assist many Aboriginal families to overcome social problems that they continue to experience.

- Programs such as mentoring, on-the-job training and job shadowing have proven successful. So have programs modelled after their traditional learning styles.

- Information Technology has the potential to increase employment opportunities for Aboriginal youth if there is affordable

access to the technology and if entrepreneurial training is also offered.

- Job sharing can also increase employment opportunities and allow Aboriginal people the time off work to continue their traditional lifestyles and spend time with their families.

The signing of land claim and self-governing agreements by Aboriginal governments will increase employment opportunities for many young Aboriginal people. To benefit from these opportunities, they will need career and labour market information and relevant training. Solutions to the unemployment situation of Aboriginal youth need to be found in partnership with all levels of governments, and especially Aboriginal governments.

Summary

Aboriginal youth are among the fastest growing segment of the youth population. Their low levels of educational attainment, high unemployment rates and very low employment and participation rates pose serious challenges for the future. We need to find ways to motivate young Aboriginals to stay in school, such as by providing more life skills and wellness programs and offering mentoring support. We need to understand why Aboriginal youth, with the exception of university graduates, are less successful in the labour market than other youth with the same levels of educational attainment. Programs in partnership with Aboriginal communities, industry, educational institutions and governments must be appropriate for the Aboriginal culture and take into account the potential economic opportunities of rural society.

Other High Risk Groups

Visible Minority Youth

In Canada, the population of visible minority youth 15 to 24 years old increased significantly between 1986 and 1996, when it reached 521,000, or 13 per cent of the total youth population.

Chinese, South Asians and Blacks make up two-thirds of the total visible minority population. Nine in ten visible minorities live in metropolitan areas and seven in ten live in Toronto, Vancouver or Montreal. Many visible minorities are immigrants, and they face barriers to labour market integration related to their language and culture, as well as to their visible minority status. According to the 1996 Census, 19 per cent of members of visible minorities over 15 years old had Bachelor's degrees or higher, compared to 13 per cent of the total Canadian population over 15.

Visible minority youth face barriers in the labour market that are not related to their level of schooling. For the same level of education, there is a striking difference between employment rates and labour force participation rates of visible minority youth and other youth. Youth without a high school education generally have low participation and employment rates, but even so, the 1996 Census data show that only three in ten visible minority youth without high school education participate in the labour market and only two in ten are employed. Visible minority youth with a high school diploma also have very low employment rates and participation rates, over 20 percentage points below those of other youth. *(Table 6)*

Visible minority youth who have graduated from post-secondary institutions also face barriers in the labour market. Wannell and Caron (1994) report that employment rates for visible minority graduates of universities and community

colleges are lower than for others with comparable education.

Table 6
Labour Market Indicators for Visible Minority and Other Youth 15-24, Canada, 1996, per cent

	Visible minority youth	Other youth
No high school diploma		
Employment rate	21.2	35.5
Participation rate	28.7	44.6
High school diploma		
Employment rate	49.9	61.9
Participation rate	49.7	71.4

Source: 1996 Census, Statistics Canada

The barriers that visible minorities face may not simply be related to discrimination. De Silva and Dougherty (1996) concluded that quality differences in education, language proficiency and work experiences might account for a large part of wage differentials between visible minority men and other men doing similar work.

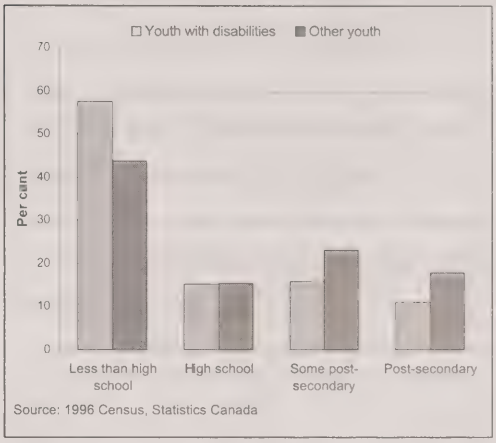
Youth with Disabilities

Disabled youth have much lower rates of high school completion than other youth. In 1996, three in five disabled youth aged 15 to 24 had not finished high school. Three in ten had completed some post-secondary education or a post-secondary degree, diploma or certificate, compared to four in ten for other youth. *(Figure 23)*

Youth with disabilities have lower employment rates and lower participation rates than other youth. In 1996:

- 33.1 per cent of disabled youth were employed and 44.9 per cent were in the labour force,
- 50.5 per cent of other youth were employed and 61.4 per cent were in the labour force.

Figure 23
Distribution of Youth with Disabilities and Other Youth 15-24, by Educational Attainment, Canada, 1996



Source: 1996 Census, Statistics Canada

Youth with disabilities also have much lower employment rates and participation rates than other graduates with the same level of education. *(Table 7)*

Table 7
Labour Market Indicators for Youth with Disabilities and Other Youth 15-24, Canada, 1996, per cent

	Youth with disabilities	Other youth
No high school diploma		
Employment rate	21.7	33.6
Participation rate	30.9	42.5
High school diploma		
Employment rate	41.8	59.0
Participation rate	53.7	68.5

Source: 1996 Census, Statistics Canada

Youth with Disadvantaged Backgrounds

A series of factors connected to disadvantaged backgrounds have been identified as increasing the risk of youth not completing high school. We have seen that Aboriginal youth and youth with disabilities have a higher risk of dropping out. Other risk factors such as poverty, living with a single parent or no parents, having

parents with low levels of educational attainment, having parents with low status employment and living in a poor neighbourhood can also jeopardise a student's chances of completing high school.

High school dropouts are more likely to have some of the aforementioned risk factors than those who complete high school. Research using the School Leavers Survey (SLS) shows that in 1991 69 per cent of high school dropouts in the 18 to 20 year old group were considered "high risk" compared to 33 per cent of graduates. Those who were high risk tended to come from lone parent or no-parent families, be married or have dependent children, and come from lower socio-economic groups.

Many of the risk factors tied to social class operate through their influence on success in educational attainment. Since educational attainment is becoming more important in determining the prospects of young people in the labour market, the factors that put high school graduation at risk will also indirectly jeopardise labour market outcomes.

The Council of Ministers of Education Canada (1999) reported that in 1996, nearly 1.4 million children 15 years of age and younger in Canada were living in low-income households. These children were more likely to have lower levels of educational attainment than children from families with a higher socio-economic status were. In 1994, 34 per cent of children from the lowest socio-economic status quartile had not completed high school. They were 50 per cent more likely not to have completed high school than students from the highest socio-economic quartile were.

However, many youth with risk factors complete high school. While 27 per cent of 18 to 20 year-olds within the "high risk" group had dropped out of high school at the time of the SLS, the remaining 73 per cent had either graduated from high school or were still enrolled in high school. Among all 18 to 20 year olds in the SLS sample, 16 per cent had dropped out and 84 per cent had either graduated from high school or were still enrolled.

Summary

Youth with disabilities and youth from disadvantaged backgrounds are less likely to complete high school than other youth. Youth with disabilities are also more likely to have less success participating in the labour market. Visible minority youth have education levels that are somewhat higher than those of other youth, but they still have lower employment rates and participation rates than other youth do.

We need to have a far better understanding of what factors stand in the way of the school-work transitions for these youth, and what can be done to eliminate these factors.

The Transition Between School and Work: Some Issues

The transition between school and work is a complex and difficult one. Youth and young adults need to make life-altering decisions that range from how long to stay in school and what to study, to how to pay for their education, to where they will live when they graduate. In this section we assess some current issues relating to the school-work transition.

In **"How prevalent is the youth brain drain?"** we ask whether we are losing too many of our most talented graduates to the United States, and why graduates are attracted to the U.S. Then we look at the interprovincial migration of youth to see whether we are experiencing a brain drain of youth from certain regions of Canada.

In **"Do trade and vocational programs prepare our youth for the work force?"** we first examine occupation and vocational preparation in Canadian high schools. We ask whether it should be extended or modified, given the large number of students who go directly from high school to the work force. Then we look at post-secondary trade and vocational graduates to determine their success in the labour market. Finally, we look at apprenticeships, which have drawn considerable attention by policy makers but remain the choice of only a small fraction of young people. We ask what might make this pathway more attractive to young people.

In **"Are post-secondary graduates overloaded with debt?"** we take a look at the recent increase in debt loads for students. We ask who in the student population might be impeded financially from beginning or continuing their post-secondary education and what can be done to remove any impediments.

How prevalent is the youth "brain drain?"

Are we losing our graduates to the United States?

The issue of Canadian post-secondary graduates relocating to the United States has been of keen interest in debates on the so-called "brain drain". Canadian graduates are drawn to the strong, knowledge-based U.S. economy and the NAFTA rules have in recent years made it easier for them to find work there. The prospect of a brain drain of recent graduates raises concerns that Canada's economic environment does not offer adequate employment opportunities for young people. Furthermore, Canada is one of the largest investors in post-secondary education in the industrialised world and when graduates leave, Canada may not be capitalising on its considerable investment in these young peoples' education.

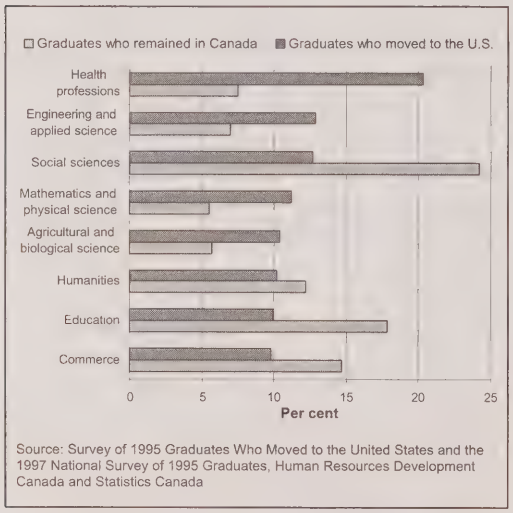
The extent of the "brain drain"

According to the 1999 report by Frank and Bélair, just over 4,600 post-secondary graduates from the class of '95 moved to the U.S. between graduation and the summer of 1997. The proportion of the 1995 graduating class who moved to the U.S. was small (1.5%). Master's and Doctoral graduates had a higher likelihood of moving to the U.S. and about 12 per cent of the 3,000 Doctoral graduates from the class of '95 moved to the States. At the time of the survey in March 1999, the median age of those who moved was 29.

Many of those who moved plan to return. By March 1999, about 830 or 18 per cent of the graduates who moved to the U.S. had returned to Canada, one half of them for work-related reasons. Among the graduates still in the U.S., about four in ten plan to return. It remains to be seen, however, whether and when these graduates actually return to Canada.

University graduates in the health professions, engineering and applied sciences, and mathematics and physical sciences were more likely to move to the U.S. than those in other fields were *(Figure 24)*. Graduates in the social science and education fields were far more likely to stay in Canada. Almost one in five of all graduates who moved to the U.S. worked there as a nurse.

Figure 24
Distribution of University Graduates by Field of Study, Canada, 1995



Source: Survey of 1995 Graduates Who Moved to the United States and the 1997 National Survey of 1995 Graduates, Human Resources Development Canada and Statistics Canada

Those who moved were more likely to be among the best students

Those who moved were more likely to graduate with above-average grades. About 44 per cent ranked themselves in the top ten per cent of their graduating class in their field of study. Moreover, those who moved to the U.S. were more likely than their counterparts who remained in Canada to have received scholarships or other academic awards.

They moved for the jobs and salaries

More than half of the 1995 graduates who relocated (57%) did so mainly for work-related reasons, and another one quarter for education reasons. Another 17 per cent relocated for marriage or relationships reasons. By far the majority of this group was women.

Of the 2,600 or so graduates who moved primarily for work-related reasons, greater availability of jobs in a particular field or industry was cited by almost one-half as the reason they moved. They were also drawn by the greater availability of jobs in general. Better compensation was also a common attraction. Nearly four in ten graduates who moved for work reasons mentioned higher salaries in the U.S. Also, about one in ten noted that better employment benefits or perks attracted them to the U.S.

Few explicitly mentioned lower taxes in the U.S. as a reason they moved. For some, however, lower taxes may have been implicit in mentioning higher salaries. Or, being recent graduates, they may not have paid income taxes for long enough in Canada to consider high taxes to be a drain on their income.

They found their jobs themselves

About 3,000 graduates had a job lined up before they left and most got their jobs through their own initiative. Very few graduates were contacted directly by an American employer or a head-hunter, were transferred to the U.S. or hired through an employment agency.

After moving to the U.S., they were very successful

Graduates who moved to the U.S. were able to secure work that was closely related to their studies. They worked in occupations that required high skill levels and were paid higher

salaries than their counterparts who remained in Canada.

The median annual earnings of bachelor's graduates working in natural and applied sciences jobs upon arrival in the U.S. was $47,400 in 1999 Canadian dollars, considerably higher than the $38,400 earned by their counterparts in Canada. There was a similar gap in salaries between bachelor's graduates in health occupations.

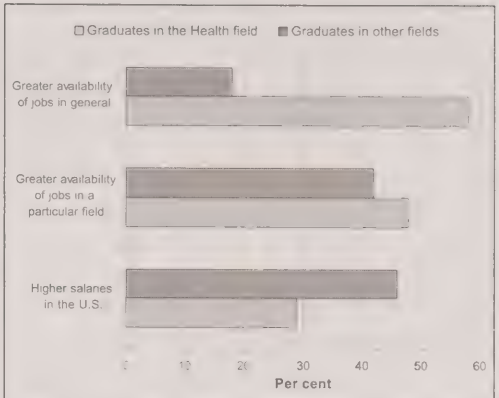
Health graduates were mainly attracted by better work opportunities in the U.S.

Over 1,300 health graduates moved to the U.S. between graduation in 1995 and the summer of 1997, which represents nearly 30 per cent of the total number of graduates who moved. Three in five health graduates who had a job in Canada before moving to the U.S. were nurses. Four in five health graduates who moved to the U.S. and who had work arranged upon their arrival in the U.S. were nurses.

The 1995 health graduates entered the labour market during a time when the health sector in Canada was undergoing major restructuring, which may explain why some decided to seek employment opportunities in the United States.

Health graduates who moved for work-related reasons seemed to be looking for a labour market where jobs were readily available: three in five of this group cited greater availability of jobs in general as their reason for moving. Higher salaries were a less important factor for health graduates than they were for graduates in other fields of study. *(Figure 25)* One in five of all 1995 health graduates who moved to the U.S. were back in Canada by March 1999.

Figure 25
Work-related Factors that Attracted Canadian Graduates to the U.S., 1995



Source: Survey of 1995 Graduates Who Moved to the United States, Human Resources Development Canada and Statistics Canada

Is there a "brain drain" within Canada?

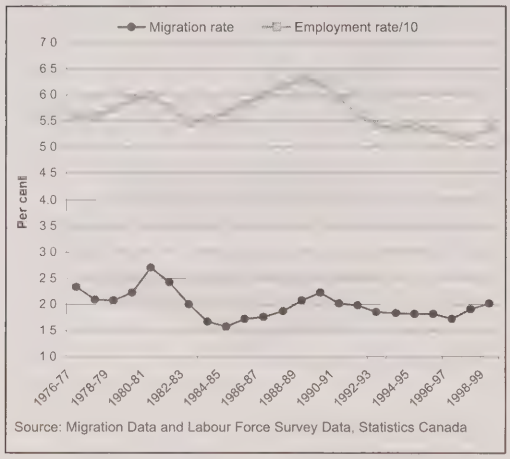
In a country as large and diverse as Canada, migration among Canada's provinces and territories is a way of matching skills and opportunities for youth in the labour market. Through most of the 1990s about 2 per cent of youth 15 to 24 migrated to another province or territory in a year compared to 1.5 per cent for the total population. An average of 81,135 youth 15 to 24 moved to another province or territory in 1998 and 1999.

The pattern of youth migration

The pattern of youth migration reflects both population trends and employment prospects. *(Figure 26)*

The migration rate of youth 15 to 24 within Canada has cycled around 2 per cent for the last 25 years. Youth migration rates followed a cycle broadly similar to that of the employment rates for youth in Canada. There was a slight downward trend in the youth migration rate through most of the 1990s, and a rebound in the late 1990s.

Figure 26
Youth Migration Rate within Canada and Youth Employment Rate, Canada, 1976-1999



Source: Migration Data and Labour Force Survey Data, Statistics Canada

Why do youth decide to move?

Youth move for a variety of reasons.

The prospects for higher income may be better elsewhere. Finnie (1998) concludes that those who migrate to other provinces enjoy significantly higher earnings after they move, especially young male workers and those from the have-not provinces.

Employment opportunities may be better in other provinces. High local unemployment rates are a significant inducement to migrate for male and female youth. However, Finnie (1998) also suggests that male youth who are unemployed and collecting EI benefits are less likely than other youth to move to another province. It is worth looking into why this is so.

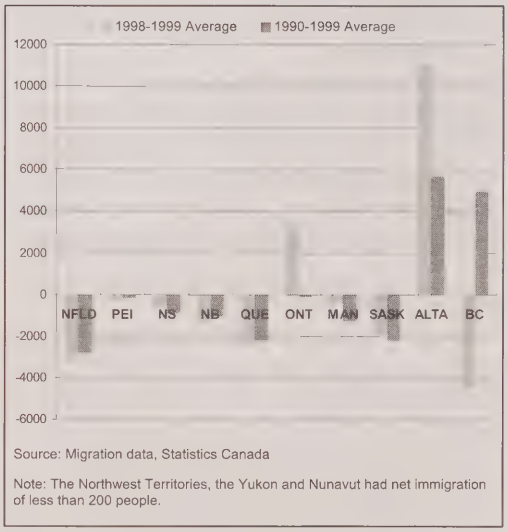
Youth are more mobile than older workers, and so may find it easier to move. Youth are more likely to be unmarried and childless; they generally have no long-term work attachment to a particular industry and/or employer; they are generally better educated and have higher job expectations than older workers, and; they have fewer cultural or community ties than older workers.

Some youth may have **personal attributes** such as better education, experience, training in a profession that is in high demand, or personal contacts that improve their prospects relative to other youth. Youth may want to live in a certain **cultural or linguistic** milieu. For example, francophone Québecois have very low rates of out-migration, whereas Anglophone Québecois have fairly high rates. Finally, they may still be living at home and decide to move when their **families relocate**.

High growth provinces attract youth

During the 1990s, Alberta and British Columbia had the highest average net in-migration of youth. Ontario broke about even over the decade. The other provinces had an average net out-migration. *(Figure 27)*

Figure 27
Net Provincial Migration of Youth, Canada, 1990-1999



Source: Migration data, Statistics Canada

Note: The Northwest Territories, the Yukon and Nunavut had net immigration of less than 200 people.

Where they go

Alberta and British Columbia had high in-migration and out-migration in the 1990s. Alberta has shown a large increase in youth net in-migration in the last two years, with almost 15,000 net in-migration of youth in 1997-98 and 11,000 in 1998-99. Statistics Canada estimates that Alberta received almost 30 per cent of all

youth out-migrants from other provinces in 1998-1999.

British Columbia, which had the highest net in-migration in the country in the early 1990s when the economy was growing strongly, has seen the pattern reverse to a net out-migration in the past two years when there was a slowdown in growth. Ontario has considerable movement of youth both in and out of the province.

Where they come from

Every Atlantic province has had a net out-migration of youth since the mid-1980s. Newfoundland has lost the most, averaging 2,800 per year net out-migration of youth in the 1990s or a net loss of about 3 per cent of their youth population each year. The net out-migration has persisted since the mid-1970s, and has been on an upward trend through most of the 1990s. The Government of Newfoundland and Labrador (1998) reports that in 1996-97, two-thirds of out-migrants from Newfoundland and Labrador were between 15 and 29 years old. With the recent strong rebound in the Newfoundland economy, net out-migration has fallen substantially.

New Brunswick also has seen a significant out-migration of youth during the 1980s and 1990s. During the trough of the last recession, the number of young people leaving the province eased off. Since the start of the recovery, however, the flow of young people migrating to other provinces has increased considerably. By 1997-98 youth net out-migration reached close to 2,000, easing to 1,300 in 1998-99. Nova Scotia and PEI showed modest out-migration over the 1990s.

There has been a chronic drain of youth from Québec since the early 1970s. Both Manitoba and Saskatchewan had steady net out-migration in the 1990s, particularly in the earlier half of the decade.

Youth migrants have a higher level of education than other youth

Studies of the "brain drain" have concluded that those who move to the United States tend to be among the more highly educated Canadians. Similarly, there is evidence that the youth who migrate to other provinces have higher than average levels of education.

When education data are averaged for several of the provinces (including Newfoundland/ Labrador, Nova Scotia, New Brunswick and Saskatchewan) that experienced net out-migration of youth around the time of the 1996 Census, it is found that on average:

- 75 per cent of those young out-migrants had at least a high school diploma, compared to 58 per cent of the total youth population
- 60 per cent had at least some post-secondary education, compared to 39 per cent of the total youth population
- 35 per cent had completed a post-secondary diploma, certificate, or degree compared to 20 per cent of the total youth population.

Summary

According to the National Graduates Survey, a modest number of graduates, about 1.5 per cent of the class of '95 moved to the United States. Those who left Canada tended to be better educated than average and among the better students. Many were in the engineering, math and science fields. The U.S. economy is large and vibrant and is likely to continue to offer opportunities to talented young Canadian graduates.

Within Canada, youth are going where the job opportunities are. Two per cent of Canada's youth move to another province or territory each year, generally away from the have-not provinces and toward the have provinces.

Slightly higher rates of youth move when the economy is growing strongly.

Some young people are not moving, even when they might improve their job prospects elsewhere. For example, male youth collecting Employment Insurance benefits are less likely to move elsewhere to find a job. We need to know why this is so. Do they lack the funds to move? Are they living at home with no family responsibilities and so do not see any urgency in looking for a job elsewhere? Do they lack the necessary skills or information? Do they tend to move when their EI benefits are exhausted?

In order that young Canadians continue to be encouraged to go where the opportunities are, we need to identify and remove barriers that may impede them from moving within Canada. Is information on employment opportunities elsewhere too limited? Are provincial and territorial licensing and certification requirements too onerous? Are social benefits not sufficiently portable? Understanding the nature of the barriers will help in the development of institutional frameworks within and among governments to improve access to better jobs for youth.

Do trade and vocational programs prepare our youth for the work force?

Occupational and Vocational Preparation in High Schools

In Canada's education systems, much of the focus has been on encouraging students to pursue a post-secondary education. Yet, according to the School Leavers Follow-up Survey, in 1995 32 per cent of youth aged 22 to 24 either did not complete high school or did not pursue further education or training: many of them went to work. Young people need to be well prepared to enter the work force.

In Canada, high schools prepare youth for the changing workplace by offering three occupational/vocational preparation options.

1. **The general education pathway** is chosen by about 90 per cent of upper secondary students. About two-thirds of those who graduate go on to post-secondary education soon after.

2. **The school-based vocational pathway** enrols less than 10 per cent of secondary students. Students are prepared for direct labour market entry although many go on to community college. This pathway has greatly declined in prominence although there are a number of efforts to revitalize it.

3. **The apprenticeship pathway** attracts only about 1 per cent of the Canadian labour force. Apprenticeships tend to be concentrated in a small number of trades typically involving adult workers.

In **Québec,** secondary school ends at year 11, a year earlier than in other Canadian provinces and there is a post-school sector (CEGEP) between secondary education and higher education. CEGEP provides general and vocational courses lasting either two years (pre-university study) or three years (technical programs leading to the labour market).

Canada and Europe: two very different systems

What stands out about the Canadian occupational/vocational preparation system is that Canadian youth typically do not start occupational preparation until age 18 (17 in Québec). This reflects a major change in the nature of secondary school transitions over the past three decades. Enrolments in colleges and universities have increased steadily while vocational education enrolments have declined significantly.

The Canadian experience contrasts sharply with that in Europe where many young people aged 15 or 16 are enrolled in multi-year technical or occupational training programs. In Austria, for example, students choose at the relatively young age of fourteen among four principal pathways.

Example of a European Model: Austria's Four Principal Pathways

1. 3-4 year apprenticeships: 40% of students
2. full-time vocational education that lasts 5 years: 25% of students
3. full-time vocational education that lasts 3-4 years: 15% of students
4. general education that lasts 4 years and qualifies youth for tertiary education: 20% of students

The Canadian and European systems both have their advantages. In the Canadian system, students are more likely to have the opportunity to continue to post-secondary education. They are less likely to be assigned at a young age to a vocation that later proves to be unsuitable.

In the European system, students who begin their apprenticeship and vocational programs early are better prepared for the work force, and less likely to go through a protracted transition to a suitable and permanent job. Those who are not interested in an academic program can thrive in an occupational/vocational training program.

Aiming for the best of both worlds

The OECD (2000a) has defined three cornerstones to a successful education and training policy that bring together the best of systems like the Canadian and European ones. The common element is flexibility.

1. Allow young people to keep their options open as long as possible.

2. Make vocational pathways "double qualifying," with access to post-secondary education and to the labour market.

3. Make the general education pathway more relevant to employment by adding vocational courses, placing more emphasis on "key" or "core" employment-related competencies, and using the community and workplaces to make general education more concrete and relevant.

What works

The OECD (2000a) offers some evidence on what kinds of pathways work best.

- Young people who have finished their compulsory education are more likely to continue in school if they are offered a range of pathways that take into account their particular interests and needs.

- Young people are more attracted to vocational pathways which "double qualify" students for both work and tertiary study.

- Strategies that make the general education pathway more relevant to employment are not as successful at preparing young people for direct entry into the labour market as "double qualifying" vocational pathways.

- Students enrol in pathways and stay in them longer if the pathways are broad, have multiple exit points, and allow transfer to other pathways with minimal loss of time.

- Vocational pathways with strong links to employers and enterprises result in better immediate labour market outcomes.

Where Canada stands now

Provinces and territories in Canada have moved away from the more traditional work preparation programs that used to offer a rigorous, multi-year vocational pathway.

Most provinces are expanding or developing their **technology courses**. For example, Ontario has replaced 90 specific vocational courses with 7 broad technological areas. British Columbia has seen enrolment in career courses increase from less than 10,000 in 1991 to 27,000 in 1996.

All provinces have a variety of **work-study and co-operative education programs**, and in some cases these are required for high school graduation. For example, students in British Columbia are required to have a minimum of 30 hours of work experience to graduate.

Eight jurisdictions offer programs that allow high school students to begin **apprenticeships** at the same time as completing course credits.

School-business partnerships help students make smoother transitions into work. They are wide ranging in scope and primarily arise from local arrangements related to local needs and interests. They include business community mentoring for students, curriculum support in technical education, science and career programs, and field trips to industries and businesses.

Comprehensive data are not available on the new programs and initiatives. Thus it is not clear whether they have successfully replaced the more traditional vocational and career preparation programs.

Post-secondary Trade and Vocational Graduates

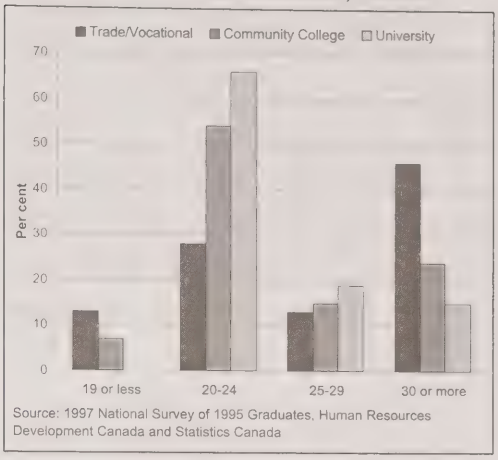
The definition of a trade-vocational graduate is variable and depends on the data source. The **Census** defines a trade-vocational graduate as one who has received a trades certificate or diploma. This may include the completion of apprenticeships, or other forms of trades training. It may also include courses less than three months long. According to the **National Graduates Surveys**, trade-vocational graduates are those who have completed skills trades programs (excluding apprenticeships) that are 3 to 12 months long and do not necessarily require a high school diploma for admission.

While the share of university and college graduates in the youth population rose in the 1990s, the share of trade and vocational graduates declined. The 1996 Census shows that 12.4 per cent of those in the labour force had a trades certificate as their highest educational qualification. Youth between 20 and 24 who were trade-vocational graduates made up only 8.3 per cent of the labour force in 1996, down from 11.4 per cent a decade earlier.

Trade-vocational programs attract male adults

Trade-vocational graduates tend to be older than either community college or university graduates. The 1997 National Survey of 1995 Graduates shows that 46 per cent of trade-vocational graduates were over 30 years old, compared to 24 per cent for community college graduates and 15 per cent for university graduates. Adults over thirty may find trade-vocational programs attractive because they are of short duration. *(Figure 28)*

Figure 28
Age Distribution of 1995 Graduates, Canada



Source: 1997 National Survey of 1995 Graduates, Human Resources Development Canada and Statistics Canada

Men comprised three in five trade-vocational graduates less than 30 years of age in 1995. In contrast, women comprised a majority of young graduates from community college career programs (55%) and graduates from university bachelor's degree programs (59%).

At the trade-vocational level, women choose very different fields than men do. Four out of five young female trade-vocational graduates completed programs in arts such as hairdressing and cosmetology, business programs, including various secretarial courses, commerce, management and administration, and health programs, which include training for nursing assistants. About two-thirds of young male trade-vocational graduates completed programs in engineering and engineering technologies programs such as auto mechanics and construction technologies. Men comprised 94 per cent of young graduates in these fields.

How trade-vocational graduates fare in the labour market

Trade-vocational graduates have higher unemployment rates than other graduates at the post-secondary level. Their employment rate is lower than for community college career graduates, but equal to the level for university bachelor's graduates. Trade-vocational graduates have successful labour market outcomes insofar as they have the highest percentage of those employed that are working full-time. They earn less than college or university graduates do, however. *(Table 8)*

Table 8
Labour Market Indicators for 1995 Post-Secondary Graduates under 30 Years of Age

	Earnings	Employment rate	Full time/ total employment	Participation rate	Unemployment rate
	$	%	%	%	%
Trade- vocational					
Total	24,380	82	87	94	11.9
Men	27,034	86	93	96	10.7
Women	19,483	78	77	90	13.6
Community college career					
Total	26,449	86	85	94	8.3
Men	29,576	88	93	96	8.3
Women	23,457	85	79	93	8.3
University bachelor's degree					
Total	31,507	82	83	91	9.7
Men	34,330	82	88	91	9.8
Women	29,254	81	79	90	9.6

Source: 1997 National Survey of 1995 Graduates, Human Resources Development Canada and Statistics Canada

The labour market experience of male trade-vocational graduates compares favourably to the experience of other male graduates. Female trade-vocational graduates compare less favourably to male trade-vocational graduates and to female graduates at other levels of education. There is a much larger difference between unemployment rates at the trade-vocational level and at the other levels for women than for men. At the trade-vocational level, men earn about 50 per cent more than women do, whereas at the community college level, men earn about 25 per cent more. Men at every level of education are much more likely than women are to work year-round and full-time. This is especially true at the trade-vocational level.

Apprenticeships

Representing only a very small percentage of Canada's total youth (15 to 24) labour force, apprenticeable occupations are not currently popular career choices for Canadian youth. Yet the employment prospects are very good for those who do choose apprenticeships.

According to Statistics Canada's Registered Apprenticeship Training Survey, there were 172,343 registered apprentices in Canada in 1997, just over 1 per cent of Canada's overall labour force. There were 44,730 youth apprentices 15 to 24 in 1997, or 0.2 per cent of the total youth labour force. Youth registrations in apprenticeable occupations rose about 10 per cent between 1987 and 1997 despite a downturn during the 1991-92 recession.

An apprenticeship can succeed or fail depending on the participation of employers and the state of the economy. The number of apprentices who completed their programs in 1997 fell 5 per cent from 1987 levels, in part because fewer had registered in the early 1990s and in part because when the economy is sluggish it takes longer for apprentices to complete their programs.

Men continue to dominate apprenticeship programs. Male youth have the strongest representation in motor vehicle and heavy equipment trades.

Women comprised only 7 per cent of all registered apprentices in 1997. However, women seem to be responding to the many initiatives that encourage them to enrol in apprenticeships: 50 per cent more women registered in 1997 than a decade earlier and their representation in male-dominated trades has grown. However, three quarters of woman apprentices are still registered in the food and service trades, primarily as hairstylists.

The apprenticeship system

Employers, apprentices, provincial/territorial governments, and the federal government share responsibility for apprenticeship training in Canada. Employers provide on-the-job training and support for apprenticeship training through wage payments and, in some cases, through the provision of equipment needed for the training. Apprentices contribute to the cost of their training through wage reductions and the purchase of training materials, and other related expenses.

Provincial and territorial governments regulate and administer apprenticeship programs, and have jurisdiction over training and certification of apprentices. In addition, they fund college infrastructure, which generally provides the venue for the in-school portion of apprenticeship training. Provincial and territorial officials form the Canadian Council of Directors of Apprenticeship, which establishes interprovincial standards and mobility for skilled trades people through the Red Seal program.

Since 1993, every province and territory has launched major reforms to improve industry participation in apprenticeship system governance, streamline regulatory frameworks, and respond to federal funding changes. Many have also sought to expand apprenticeship opportunities for youth by allowing them to begin apprenticeships while completing secondary school requirements, improving the quality and dissemination of information about careers in apprenticeship, and offering loans designed to offset the costs of required tool purchases.

The federal government's funding role in apprenticeship training has changed considerably over the past five years. In November 1995, the federal government announced it was withdrawing from direct financial support of training activities, including apprenticeship training. The *Employment Insurance Act, 1996*, required the federal

government to stop purchasing training for clients by June 30, 1999, and enabled it to provide EI funds to individuals who in turn purchase training themselves. Under Labour Market Development Agreements, provinces and territories now have more flexibility to pay for additional training services.

Apprenticeship experience in Ontario and Alberta: two surveys

What motivates youth to become apprentices?

Two surveys, one from Ontario and one from Alberta, show how Canadian youth view their experience in apprenticeable occupations. In March 1997, Ekos Research Associates surveyed 1,221 people in Ontario's apprenticeship system. Over half of the respondents started apprenticeships because they believed apprenticeable occupations offer good wages and benefits. One in five youth chose apprenticeships because of job security.

A spring 1999 survey conducted by Nichols Applied Management of 3,141 Alberta apprenticeship program graduates reported quite different results. Over half of Alberta youth were more likely to start an apprenticeship out of some personal interest in a trade. One in ten had listened to family advice, and one in ten had some familiarity with the trade. The availability of a job and the expectation of better wages were each chosen as reasons by less than ten per cent of respondents.

The employment prospects of apprentices

Choosing an apprenticeable occupation pays off for youth in terms of employment. At the time of the Ekos survey in 1997, Ontario's unemployment rate was 8.8 per cent. Yet, only 4 per cent of Ontario youth journeypersons were unemployed and over 70 per cent of those employed were full-time.

Four and a half per cent of Alberta youth respondents to the Nichols survey reported being unemployed at the time of the survey, when the provincial youth unemployment rate was 10.9 per cent and the overall provincial unemployment rate was 5.9 per cent.

Ways to make apprenticeship programs more attractive

Respondents to the two surveys offered some suggestions on how apprenticeship programs might be made more attractive to youth. Youth from both provinces viewed promotion of apprenticeships in high school as by far the most important way to make apprenticeship more attractive. Both also considered more financial aid to be an incentive.

In Ontario, youth also suggested that apprenticeships would be more attractive to young people if employers found them more attractive and if the economy improved.

In Alberta, youth also suggested that secondary school work experience programs, trade shows and open houses, and using journeymen for public relations in schools might help to make apprenticeships more attractive to youth.

Summary

Trade and vocational programs are not growing strongly in Canada. Enrolments have declined significantly in **vocational education in Canadian high schools**, and various work preparation programs have taken their place. We need to know more about the outcomes of high school students who seek to develop their workplace skills in high school work preparation programs. Are the new programs aimed at developing work place skills an improvement over the more traditional vocational and career preparatory programs that they replaced? Who has received the benefits of these new programs? Are the students who do not go on to post-secondary education participating?

We need to determine whether these programs make the best use of scarce educational funds and which programs should be enhanced. Should new ones be developed?

There is no one approach to improving occupational and vocational programs in Canadian high schools. There is a wide diversity of needs and interests among high school youth depending on their regional, cultural and financial circumstances. Provinces and territories can exchange ideas and find what works best for them.

Post-secondary trade-vocational programs did not experience the same growth that community college and university programs did between 1986 and 1996; in fact their numbers declined somewhat. A majority of trade-vocational graduates are male, and tend to be older than those from other types of post-secondary institutions.

Trade-vocational programs tend to take less time to complete than other programs, and so would be more attractive to older workers. They may be good avenues for promoting lifelong learning.

The future success of trade-vocational programs may depend in part on their ability to encourage young women to move outside of more traditional fields of study and into ones where they are able to experience more favourable returns to their education.

Apprentice registrations for youth increased about 10 per cent between 1987 and 1997, although completions declined over the same period. A number of directions can be taken to make apprenticeships more attractive to youth. Basic information about apprenticeable occupations is instrumental. This information can spark personal interest in an apprenticeable occupation for both men and women or supplement knowledge that youth receive from other sources like family or the workplace. One key outcome that could be stressed is the high employability of apprenticeship program graduates compared to graduates from other education and training programs. Apprenticeable trades can be also encouraged by offering those with the interest and the talent the chance to explore this pathway while in high school, either through work experience programs or high school courses.

An apprenticeship is a serious and long-term commitment for youth. However, as the recent drop in apprenticeship completions has shown, there is a risk that during economic downturns employers will be unwilling to take on new apprentices or be forced to lay off those who are part-way through their programs. Perhaps one reason that so few embark on apprenticeships is that they do not have the assurances that economic factors beyond their control won't jeopardise their apprenticeship. Assurances could come in the form of financial assistance, such as transfers to individuals or employers, or loans for tools.

Are post-secondary graduates overloaded with debt?

Debt Loads of Post-secondary Graduates

According to the National Graduates Survey, post-secondary students who graduated in 1995 had, on average, borrowed more money to finance their education and had higher debt levels at graduation than those who completed their studies in 1982, 1986, or 1990. The 1995 graduates were also paying off their loans at slower rates than previous classes and had higher levels of debt still outstanding two years later.

Just over one-half of university and college graduates in 1995 had borrowed to finance their education, a slightly smaller share than in 1990. However, those who borrowed had higher levels of debt. The average 1995 graduate who had borrowed from a government program owed 38 per cent more in student loans in 1995 constant dollars upon graduating than the average 1990 graduate, and 61 per cent more than the average 1986 graduate. The amount owed to sources other than student loan plans was also higher for the 1995 graduates.

Furthermore, the 1995 graduates were paying back their loans at a slower rate. Two years after graduating, 1995 graduates had repaid a quarter of their loans, compared to a third and a half respectively for those in the classes of '90 and '86. The 1995 graduates had more debt to repay than those who graduated in earlier years, but they also had lower levels of reimbursement than earlier graduates. Two years after they graduated, the class of '95 had paid back an average of $2,600 (university) and $2,300 (college) in 1995 constant dollars compared to an average of $3,200 (university) and $2,600 (college) for the classes of '86 and '90.

Why Debt Loads Are Greater

Financial pressures have prompted post-secondary institutions to raise their fees dramatically in the past decade. Tuition fees in constant dollars were 46 per cent higher in 1995 than in 1990 and 57 per cent higher than in 1986 – and they have continued to climb. Students could not cover the shortfall, especially since high youth unemployment rates in the 1990s meant that students earned less income from working while in school. Meanwhile, government bursary programs were cut back substantially and students took on debt in place of assistance that required no repayment. Eligible students were able to borrow more after 1994 when the ceilings for loans under the Canada Student Loans Program were raised substantially from $105 per week to $165 per week.

Higher borrowing from student loan programs seems to have been a necessity and not just a short-sighted way of getting "free money," given that students resorted to borrowing more from private sources as well from government.

Continued High Debt Loads

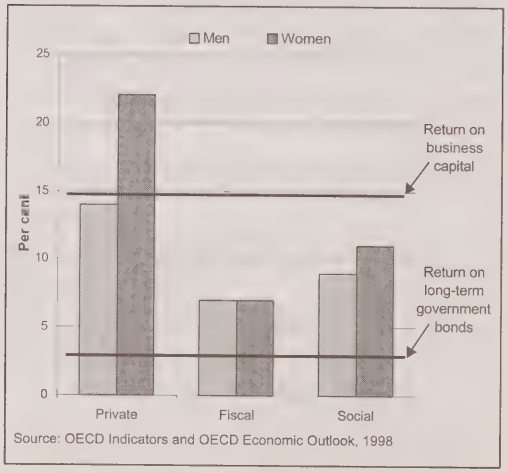
National data from student loan programs show that today's post-secondary students are accumulating even greater debt loads than those who graduated in 1995. Tuition fee hikes have continued since 1995 and so can be expected to push debt higher in the coming years. Also the change in government borrowing limits and cutbacks to bursaries came into effect in the final years of school for the 1995 graduates. Those who pursued a post-secondary education after 1995 will experience the full effect of the move from bursaries to student loans.

National data can mask important provincial differences due to discrepancies in factors such as tuition fees.

Post-secondary Education: A Good Investment

The OECD (1998) estimates that the private rate of return to a university education was about 15 per cent in 1995 for men and over 20 per cent for women. *(Figure 29)* Thus the incentive is strong for young people to complete their post-secondary education, even if it means taking on a higher debt load. The benefit to Canadian society, or social rate of return (sometimes referred to as total rate of return), of investing more public funds in student university education is about 10 per cent. Despite higher tuition fees and student debt loads, the monetary rate of return to investing in post-secondary education in Canada has not changed a great deal in real terms since the early 1980s.

Figure 29
Rates of Return from a University Education, Men and Women, Canada, 1995

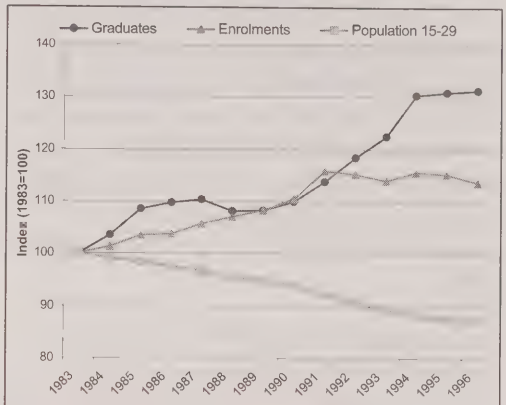


Source: OECD Indicators and OECD Economic Outlook, 1998

Higher tuition fees have had little effect on the rate of return to investment in post-secondary education because tuition comprises only a small component of the full cost of education. The lion's share of the cost associated with a university education is the opportunity cost of studying: that is, the loss of income that the student could have earned by working instead of continuing his or her education.

High private rates of return continue to be a powerful inducement to invest in post-secondary education. Full-time enrolment in post-secondary education climbed in the 1980s and levelled off in the 1990s *(Figure 30)*, despite the higher direct costs of education, and declining population of young people 15 to 29 years old.

Figure 30
Post-secondary Enrolments and Graduates, and Population 15-29, Canada, 1983-1997



Source: Administrative data on Education, Statistics Canada
Note: Enrolments and graduates include all ages.

For Some, Higher Student Debt May Pose a Hardship

In principle, the substantial monetary benefits that come with a post-secondary education would suggest that graduates should be able to repay their loans. However, debt loads prove to be too heavy for some.

Young people from lower socio-economic backgrounds may face hardship from excessive debt loads because their families are less able to offer them support when they run into difficulties in meeting their loan payments. The Council of Ministers of Education Canada (1999) finds that the number of university students aged 18 to 21 from lower socio-economic backgrounds grew more slowly between 1986 and 1996 than the number of university students from other backgrounds. These results are based on a small sample but

nevertheless raise important issues relating to equity of access to post-secondary education.

Other countries such as Australia and New Zealand have adopted "income contingent" loan programs to relieve debt loads of post-secondary graduates. In these programs, the total amount that a student must repay, calculated in real, discounted present value terms, depends on the student's earnings after graduation. One of the arguments in favour of income contingent programs is that they offer debt relief for those who face hardship because their incomes are too low to cover their student loans.

In Canada, certain measures have been implemented in recent years to help those who have large debt loads. For example, interest relief and debt forgiveness programs have been expanded. Governments are also supporting summer employment programs. These programs help students earn money to contribute to their education and keep their debt levels down.

However, higher borrowing limits, which are set to accommodate the majority of students, may not provide sufficient funds for certain needy students to pursue their post-secondary studies, especially in the face of higher tuition costs.

Moreover, those from lower income families may be wary of mounting debt and thus deterred from taking student loans, even if post-secondary education is a profitable investment. The evidence available on this important issue is limited and could benefit from further research and monitoring.

Summary

Despite the increases in tuition fees and the higher debt loads borne by graduates, the benefits of a higher education remain substantial. Most youth continue to have access to the post-secondary education system, as shown by continued growth in full-time enrolment.

Nevertheless, for some groups of young people, the increase in the costs of post-secondary education and the associated increased debt loads may represent significant barriers to continuing their post-secondary studies and cause hardship after leaving school. Measures such as the introduction of the Millennium Scholarship as well as expansions of the debt reduction and interest relief programs aim to address these concerns. The situation will, however, require close monitoring in the years to come. For example, more regular monitoring of educational attainment by socio-economic status is needed in light of the substantial increases in tuition fees in post-secondary education in recent years.

Conclusion

The *Profile of Canadian Youth in the Labour Market* reported to Labour Market Ministers on the progress of Canadian youth in the labour market. Presented below are some key issues that emerge from the report. Also presented is a discussion of the next steps toward a better understanding of youth in transition between school and work.

Issues

1. How can we keep our youth in school?

Young people who dropped out of high school were left far behind in the most recent recovery and now face the prospect of persistent exclusion from the labour market. The average unemployment rate for adults who dropped out of high school is three times that of university graduates. The high school dropout rate has fallen steadily in the past decade, but more progress is needed. How is it achievable?

We need to find out more about why young people drop out, and what can be done to keep them in school longer. There is evidence that young men are more likely to drop out and less likely to consider the long-term benefits of staying in school. Young women, on the whole, are more likely to take into account the higher returns of continuing in school and tend to stay in school longer. However, a significant minority of young women leave school to care for young children. They face dismal labour market prospects and a higher risk that their children will not finish high school either. Young people who drop out may also face serious barriers to pursuing further education and training.

There is no one "fix" that will keep youth in school. The suggestions by the OECD to create alternative pathways for students look promising. They would allow students the flexibility to explore academic as well as technical and occupational programs, and to leave open the option to continue on to a post-secondary degree or to prepare for direct entry into the labour market. These pathways would also offer work experience and courses to improve literacy and numeracy skills. Other options to consider are information campaigns to promote the benefits of high school completion or increasing the legal age to leave school.

2. What can be done to improve the prospects of Aboriginal youth?

Aboriginal youth are among the fastest growing segment of the youth population, and have among the highest dropout rates and unemployment rates and the lowest participation rates in the country. Their futures hold serious challenges. Given the evidence on the connection between success in the labour market and educational attainment, improving educational levels of Aboriginal youth is likely to have an impressive impact on their ability to be economically independent and proportionately represented in the labour force. The Aboriginal people who have graduated from university tend to participate in the labour market with the same degree of success as others with a university degree, which suggests that education is one of the first places to look to improve their labour market prospects.

The question is how to motivate these young people to stay in school. Part of the answer seems to lie in taking an approach that is appropriate to the cultural, social and

economic needs of the communities in which young Aboriginal people live. Integrating life skills and wellness programs into the curriculum seems to work, as do mentoring programs and on-the-job training. Programs that bring learning to rural communities through information technology would remove the financial and emotional burden of having to relocate in order to acquire skills. Programs are also needed in urban areas to give young Aboriginal people the chance to learn in a safe, stimulating environment the skills that are relevant to the work they want to do. Programs in partnership with Aboriginal communities, educators, business and government seem to work best.

3. How can we better prepare high school students who enter directly into the labour force?

Canada's education system has focussed, with considerable success, on encouraging students to continue on to a post-secondary education. The programs in high school are geared primarily towards a pathway that leads directly to a post-secondary degree. In the past, the technical-vocational pathways were designed for students who would go directly from high school to work. Many of these programs have been phased out and replaced with a variety of technology courses, work-study and co-operative education programs, apprenticeships and school-business partnerships.

We need to know more about the outcomes of the students who are entering directly into the labour force, whether they benefit from the new programs in place, and whether other programs might better suit their needs. The educational pathways that have been found to work by the OECD deserve a second look. In particular, strategies that "double qualify" students for school and work, have strong links to employers and give students who are more practically than academically inclined the chance to sample vocational pathways have been shown to work well. If a newly crafted vocational pathway is to emerge, it will need to be rid of the stigma that was attached to earlier vocational programs.

4. How can we ensure continued access to post-secondary education for all youth?

Despite increases in tuition fees and higher debt loads, the benefits of a higher education remain substantial. Enrolment figures show that most students continue to have full access to Canada's post-secondary system. However, there are some signs that youth from lower socio-economic backgrounds are not taking the same advantage of post-secondary education opportunities as others.

More work is needed to determine the extent to which higher tuition and debt discourage some students from continuing their education, and whether the measures that have been put in place to ease debt loads are appropriate for their needs. This is a situation that requires close monitoring, especially given recent increases in tuition and debt loads.

Toward a Better Understanding of Youth in Transition

Profile of Canadian Youth in the Labour Market has set out to determine our progress in achieving the goals adopted by the Labour Market Ministers. Progress has been measured in terms of how far we have come in achieving eight desired "outcomes." For example, one outcome we look at is a "higher youth employment rate." The employment rate for youth finally began to grow after 1998, which suggests that youth are starting to have an easier time making the transition between school and work.

This is not the whole story, however. Because youth are in various stages of the school-work

transition, the interpretation of our progress in achieving the eight outcomes is not always clear-cut. And, it is difficult to know when the transition has been completed, since youth are often going to school and working at the same time, or returning to school after starting out in the workforce.

During the school-work transition, young people go through a stage when they are building the skills and gaining the experience necessary to earn a living. They will have made a successful transition if they have found, in the shortest time possible, stable, full-time, well-paid, and satisfying employment.

An "outcome" such as a higher employment rate for youth reflects the progress of youth who are in the transitional stage as well as those who have reached the endpoint of their transition. When interpreting the outcome it is sometimes difficult to disentangle the influences on youth in transition and those on youth who have completed the transition. For example, a sixteen-year-old student who takes a part-time entry-level job is building her experience and skills. She may have an entirely different outcome than a sixteen-year-old dropout who takes the same job.

The transition takes time – an average of eight years in 1998, according to Statistics Canada (1999). Because the transition is a dynamic process, the best way to measure its success is to track the progress of youth over time using longitudinal surveys. We can start with high school students before they have begun the transition, and follow their progress for several years by asking them a series of detailed questions at regular intervals. In this way, we can better observe the features of the transition.

There is no single indicator that measures a successful transition. A combination of indicators is needed to account for the characteristics of the variety of transitions that can occur among youth, and of the different phases that they go through along the way. We need to know whether youth are working and the kind of work they do while in school. How long are they in school, and in what fields of study? What do they learn? How do they find their job? How long does it take them to find a job, and how long do they keep it? What do they earn? How do the education skills and the job skills match up? Do they like their job? What is their family background? Do they face any social or cultural barriers? Where do they live and where do they move?

We also need to take into account the macroeconomic conditions such as output growth and unemployment rates, as well labour market regulations, such as Employment Insurance and the minimum wage. Finally, we must take into account the policies and programs that are in place to help youth make their transition – labour market and career planning information, for example.

To be useful, the indicators must offer plausible explanations of the factors that determine the choices that youth make in their school-work transition. We have solid, well-tested techniques that can be applied to longitudinal data, which identify the relationships between the indicators. With this information in hand, we will be in a better position to formulate policies that will smooth the school-work transition of youth.

The Youth in Transition Survey (YITS) initiated by Human Resources Development Canada and conducted by Statistics Canada aims to document the school-work transition experiences of Canadian young people. This study will profile 15 year-old youth and track them over time. The survey will provide essential information on the factors that promote or inhibit successful transitions for youth in Canada.

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